

Home Computing WEEKLY

Special issue
Listings
extravaganza

No. 87
Nov 6-12, 1984

45p

CAM 64 game of
logic
Plumbers
nightmare

VIC-20 space
frenzy
The aliens are
coming!

Utilities for
Spectrum,
Amstrad, ZX81

Thinking games
for Amstrad,
Atari, Dragon,
TI-99/4A

Warlock
competition
30 bumper packs
of four games
must be won!

Reviews for:
Spectrum,
CBM 64, BBC,
Electron, TI-99/4A

TITANIC



Push-button software

Software will soon be available
at the push of a button if a new
serviceless tech is to its claim.

The machine is called Soft-
Shop and is marketed by a
company called Koot Tech. It
is a new tape which can be
loaded on the tape from a
collection of at least 100 games.

The customer buys a token
from the machine and inserts it
into the machine. The Soft-
Shop then plays a sample of
the software, which helps the
customer select from a number
of games on tape, as
customer makes a certain price
stage.

Once the customer has
selected a game the machine
commences loading, which is
done at 30 times the normal
speed, making the whole
process less than a minute.

The Soft-Shop also provides
an entry card, for the customer
to fill in, and an instruction
booklet.

Michael Morris, managing
Continued on page 1

DI's secrets under threat

Privacy: DI's spending record
and costs £100. That's the matter
made to a computer for by a
West German magazine — now
said to be here — according
to a new magazine that the
Electronic Frontier Journal named
the other down and Privacy DI's
spending habits remain a secret.

The German magazine, it
said, commissioned the hacker
to break in to the computer
records of Privacy DI's, and
then and reveal all his refused
to cooperate and wishes to
keep a low profile over the
whole matter so that he can
continue his life in privacy.

As a leading hacker is reported
in saying in DataLink: "People
are getting confused between
computer criminals and
hackers. Whereas the computer
will do a lot of money, we do it
for the same reason that people
break computers — because of
the challenge, not for personal
gain."

And Buckingham Palace
passed the hacker's message.
"It's very interesting to learn
Continued on page 1

Hill

MacGibbon

King Arthur's Quest



ALL POSSIBLE
 I'm going to be a knight (and I'm
 ready. Would you mind bringing
 me a sword? It's in the south.



I'll meet you
 at the top of the
 mountain. I'll be
 there for you. I'll
 be there for you.

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 the rest
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All program screens by Fire Map Computers Ltd

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 02-353-9462

D's secrets

From front page

that the person concerned turned on the other detail," a spokesman told *Home Computer Weekly*, "and it was quite right that he should have refused. It's obviously an invasion of privacy."

Telink is a new bi-monthly magazine, costing £3, which will cover telecommunications in all its forms. Computer hacking has hit the headlines this year with incidents of magicians installing an so military transport systems — and of course was the theme of September 11 and *Whisper*.

A reader need know something too vital piece of equipment — then it's all down to knowledge. Telink offers that those day hackers are being treated less promising enough topics which are now available through the skill of hackers.

Missing device of Database Publishing, David Marks, was disappointed about his new venture. "We see this publication as opening up a whole new world for microcomputer owners. People will want to make their hardware more just playing games, and here is something really exciting and useful which can be undertaken by a novice with the aid of a few printed random digits."

Push-button

From front page

director of Home Tech, said "We have outlined the support of several software houses, and there should be some top 50 games in the selection. The first 50 should be in the shops for January or February." Mr Marks added: "By the end of 1986 we expect to have installed 1,500 machines."

With Sam's agreed to take one of the machines on trial and several other major companies are interested including Ocean, Minter and Home Cinema.

Soft-Shop tapes are equipped with an autostop device, a feature which enables machines under development to be used back. Mr Marks said: "We are the only company with an autostop system."

Mr Marks is convinced that the machines are totally reliable. He said: "It is extremely important because if they are not, the show would be a bit without rock. The visitors and the staff can use it, the cash-point machine, and after other points have a history of reliability as well."

Games from down under

There's an Australian connection at Inboard. The company which published *Horrid* has now negotiated with the *Horrid* Group of Melbourne and will be releasing *Four Companions* 64 games at the beginning of November. The game will be launched under the new title of *Outboard/Inboard*.

Of *Black Knight*, Inboard says it's "the greatest Australian ever seen, with 18 levels long and 10 more than *Dragon*". *Adrena Salus* "action thriller look like a 4-wart" according to Inboard, while *Four Friends* "Companion" is "a double barrelled shotgun of park space action". It's a two-pack of shoot-'em-up games, and all three packs will cost £9.95.

London, Kensington Works, 390-397 Arenal Rd, London W8N 3DS

Koola bonus

Autocross has now provided such incentive to buy the Koola Pad standard, there are opportunities for KoolaPad users and the Koola bonus Program's Guide, as well as Koola power software.

Available for the Commodore 64 exclusively through Autocross, the package costs £19.95 and is available with cassette or disc. A new modification is that cards will now be truly readable instead of mirrored.

The KoolaPad allows you to print out your graphics, while the programme auto describes how you can use the Koola Pad as an input device in your own programme.

Autocross, 39 Station Rd, Park, London Rd, Reading, Berks RG6 1AE

Wally behind the wheel

With the increasing competition between software houses to sell you their software, Mikro-Ges has moved into the field of sports-related with its new racing car.

Mikro-Ges's car has successfully entered the British Motor Championship and the Belgian Grand Championship. Wally Week, Mikro-Ges's car of the year, said: "I have been known to find a hard with the actual mechanics, but I

have had great difficulty finding ways to fight my opponent."

Mikro-Ges, 44 The Broadway, Bracknell, Berks



Wally turns the engine

Row over Chiller rights

A company has blown up outstanding Microtron's by using game Chiller for the Commodore 64.

Rocksoft, a company formed to protect musical publishers and their copyrights, has issued a statement claiming that Chiller has been withdrawn and a statement out of court settlement has been agreed between the two companies.

Rocksoft claims that the soundtrack of Microtron's game is so similar to the Michael Jackson *Thriller* that it cannot be a coincidence. Rocksoft says that Microtron used the *Thriller* music without obtaining a licence.

Microtron is adamant that none of it is from Frank Stallone, ultimately, and "it has been brought to our attention that the company recently produced in this program are similar to the music copyrighted by Rocker Music called *Thriller*. Therefore

we have agreed to negotiate a royalty in respect of this, and to use different music so that we don't infringe anyone's copyright."

Peter Jones, Microtron spokesman said: "As to last but the game has been withdrawn. Rocksoft's statement is totally untrue."

Mark Alder of Microtron continued: "It is completely denied that we agreed out of court settlement. We take no exception to their statement — what we have done is agreed to pay royalties on the game sold so far — but we have now changed the theme music on the game tapes."

Mark Humphrey, Rocksoft's general manager, said that if Microtron has changed the music then the game is no longer *Thriller*. However, he added: "I do not call it *Thriller* because they are supposed to have a license before they use the music."

Microtron's Chiller is the showpiece of the £1.99 range of

badges, parent software and the game's rules have already crossed the 100,000 mark.

Address: 14401 Park Lane, N.Y.
Phone: 212-351-1000, Telex: 100000

Rocky Horror Show

After Activision's announcement of a game from a new publisher, Gamehouse, CRI has announced its plans to release the game version of a very long-running cult film, *The Karate Kid*. *Electronic Games*

Notpansow, particularly in the States, for its following of devotees who dance for the part and sing and dance along with the shape, the Bakti Harnam (film) there has been a box office success for many years. CML is already intending to launch on it that stronger with its

Guests Chambers, CKL managing director, said "Flare such as Saturday Night Fever were a hit when they were on K, but they were also successful when they were awarded an A certificate. The Rocky Horror show can make an outstanding horror game without actually portraying it like *Exorcist*."

Transcendentalism and foodways were portrayed in the film, and the game will have to be weighed down for a heavier audience. CRI, also has the region in the Mago Romaniadown and Tamaritania, the epidemic version of Thunderbolt and a is clear that economy deals are becoming increasingly important not only the CRI, but also a number of other

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Modem for sale

Lynx has announced the launch of its full factory modern, covering 49 99. Five new models include new dual, triple cab, two doors, one hand van, van, full duplex, half duplex, battery based entry, number memory store, compatibility with all UK, USA and European standards, power windows, locks and mirrors.

Unison claims that the system is easy to understand and use. It automatically refreshes content and you can shut your eyes or other sensors by remote facility to update or download software.

University, 20 Orange St., London
WC2A 3LX, UK



1000

Quest for perfection

Launched to compensate for the defections of the QJ, Quest's executive team is intended to make the QJ a much more attractive proposition for the small business owner.

History expenses, assets, manage devices, assemblies and components, as well as business software, are all available at a price which will ensure that the QM can be used as a "universal" business machine. For £200, according to a QM spokesman

Also available is a service agreement, which will enable you to come back to us with problems and queries — a back-up service not possible with computer firms.

James, Richard L., *Chancellor*
 1997-1998 \$24,000

Commodore books: schools quiz

CompuShare has pledged its sponsorship for the 1985 British Computer Society Schools' Conference Day.

"Compendium is delighted to be associated with the British Computer Society," said Mark Morris, Director and Education Manager for Compendium. "The aim demonstrates our mutual objectives of helping schools to own their own computers, training their children, wherever they study, have the opportunity to master the requirements of the sector as it rapidly changes."

What you have to do is enter a 'Top' and the 'Performance' again.

Each school must select a team of three people, with ages ranging from under 13 to under 18.

Local area buses will begin in November and 40 area finalists will receive a Commencement award-maintenance stipend. Next step is the regional finals, of which eight regional winners will get IBM 64 computers and I/O disc drive.

From the national final, due to take place in July 1993, will emerge a first prize-winning school, and the top prize is £1,800-worth of Commodore equipment.

David Harding, secretary general of the British Computer Society, said "The BCS has grown dramatically during the last two years, and now with Comshare's support it will become a major national event, bringing the world of computers closer to young people."

Comerjones sees the grant as an ideal opportunity to promote his commitment to using computers in schools. He plans spending amounts to over \$10,000.

British Computer Society, 11
Mansfield St, London W1M
0QX

Budget software

Another software house has announced that it will be selling software at £1.99. Micro Mart Software has announced a range of 10 titles for Spectrum, Commodore 64 and IBM.

Errol Dyer, senior partner, said: "We see the flow software being to provide educational software in business areas."

Follows Mapi from the teaching of a large European company and its range will be distributed throughout Europe.

The first 10 programs will include short educational talks, five minute games, one graphic adventure and a family game.

Micro-Mark Software, 24 Mine
 Rd., Kalamazoo, MI
 49001-1446

Raffle For the OL

The next JCC Memphis will be held at Alexandra Palace on the weekend of 17-18 November. It's the 14th Microfar and features over 120 exhibitors.

Help a Learning Child, the charity sponsored by Capital Radio, has a stand in selling raffle tickets for over £2,000-worth of computer equipment. Richard Alliman will present the prizes on Sunday 18th November, and all proceeds go to charity.

New software

Highway Code, a new CEM program for the System and Commerce Co., has gained the approval of the Associated Association.

The program, which costs \$1.93, consists of more than 100 questions and the user is given a percentage rating on the subject.

Graphics illustrate road network and traffic conditions

CELL, 9 Kings Yard,
Chancery Lane, London EC2A
3AB

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Whitelyby/Cosmos Ltd
Usual price (RPK) £14.95



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Masterfile is a menu-driven filing and retrieval system of unlimited power. Simply format and use as defined by the original applications or a menu-driven system. Whitelyby/Compufile Systems Ltd
Usual price (RPK) £14.95



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The old and classic 3D strategy game Art Attack continues during the new line-up with both moving action and a real tactical challenge.

You take it to the next level with our new, more colorful graphics and scope. At all times you can choose from four angles of view. Art Attack: the city is your ally. Whitelyby/Cosmos Ltd
Usual price (RPK) £9.95



All programs run on ZX Spectrum or Spectrum +. Recommended retail prices are for each program as separate.

...includes this great set of Microdrive programs!



The unique ZX Microdrive system sets the Spectrum apart from all other home computers.

It gives you all the advantages of floppy disc drives—at a fraction of the cost. And tests show the Microdrives are faster than some disc drives.

Now, the complete Microdrive system comes in one package—together with four of the best-ever Spectrum programs, on Microdrive cartridges.

This software alone would normally cost you over £90. Yet the Sinclair price for the complete ZX Spectrum Expansion Pack is just £99.95! You'll find full details of its contents in the panel opposite.

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Smaller than a matchbox, the ZX Microdrive cartridge packs in a massive amount of data and programs.

Each Microdrive cartridge holds at least 85K bytes of data or programs (that's 30 pages of A4 text). And you can store up to 50 different data files per cartridge, identified by titles of your choice.

Every cartridge comes in its own protective case. Simply remove the cartridge, slot it into the Microdrive, and it's ready to use.

ZX Interface 1—adds powerful new capabilities to your Spectrum.

ZX Interface 1 connects to the back of your Spectrum and controls up to 8 Microdrives. (Additional Microdrives are available for £49.95 each.)

It also gives you:

- An RS 232 interface—to link your Spectrum with full-size printers, other

computers using RS 232 (the industry-standard interface) and provide data transmission over telephone lines, via modems.

- ZX Net—lets you set up a local area network of up to 64 Spectrums, for high-speed data communications between you and Spectrum-owning friends.

At your local Sinclair stockist—today!

The ZX Spectrum Expansion System adds an exciting new dimension to Spectrum and Spectrum + computing. At £99.95 it's superb value too.

To find out more, call in at your local Sinclair stockist now!

Sinclair Research Ltd,
Cambridge CB2 7B 6B5 11.

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Three educational titles from Koomon: The French Monarch, The German Master and The Spanish Tally, have been released for the Commodore 64, joining the version for the BBC. Electronic and Spectrum (both language is covered by two cassettes and they cost £9.95 each) Commodore for the BBC range. Amstrad and Dragon are to follow early for next year.

Koomon, 1 Pilgrims Close, Marpleton, Doncaster, South D52 6LS

New from Channel 4 for the Commodore 64, Time Zone, a fast-action shooting game, Phase 4, which is four arcade games in one, and Futaba, converted from the Spectrum. All cost £6.95. Channel 4 say that the Mysticism Adventure series can now be supplied by the Atari, BBC, Lord MS, Commodore 64, Dragon, One/Amstrad and Spectrum.

Channel 4, 11 Fulham Road, Putney, London SW3 6HM

Quango, Quango and Phoenix are new releases from Interceptor Micros. Coming 27 on tape and 29 on disc, they are arcade games. Quango "is guaranteed to damage wrists and possibly shins", while Quango is a "family maze game (both for C64 and Phoenix) is a Spectrum game in which you must save

the mayor of New York who is stranded in a lift shaft!

Interceptor Micros, Lyndon Mtn, The Green, Tynley, Maccles

Android Dreams is the name of a new software house which has just released Expert Sports Soccer for the Commodore 64. According to Mr Brown, managing director, "the package is very comprehensive and suitable for both experts and beginner games writers".

Android Dreams, 34 Redial Rd, King Norton, Birmingham B32 6DU

Namco, due for release on November 16, is Plo's new Spectrum title. There are 4,096 rooms through which you must progress, killing the 256 different monsters. Your aim is to collect DNA fragments deposited in the gene room, and invert the control of the species. Price £3.95.

PSE, 453 Broomway Street Rd, Gowerney, Cwm 30G

Pick of the pops

It's often said that there are numerous parallels between the record industry and software and here's another new one to

which the two fields are similar compilation tapes.

Computer Records is a new software house which has released Select 1, a compilation tape featuring 12 hit games. Included on the cassette are Hunchback, Kong, Harpist and Starfield. Adventure such as Orion through the Drinking Glass, Brain Applications, Hellman and Ring of Fire from Quadrangle are also included on the tape.

To quote Computer Records, "As well as offering excellent value for money, Select 1 gives both the first-time buyer and the hardened games player a unique opportunity to add 12 computer titles to his or her collection at one stroke".

The price of the compilation tape is £12.95 and it's available for both Commodore 64 and Spectrum. Select 1 is being marketed in conjunction with Televis Records, a TV record manufacturing company. A national TV advertising campaign during 1985/86 will support the promotion.

The Commodore compilation tape features the Burrett synthesizer system, while the Spectrum version comes with indexing software which enables you to locate and load the game automatically.

Select 1 is manufactured by Commodore 64 and Spectrum, with the hope of selling 100,000 copies before Christmas. Neil Palmer, director, said that the games are exactly the same as

if bought individually. The difference is that £20-worth of software is being sold for less than £13.

"Computer game compilation tapes were an obvious expansion for Televis", said Mr Palmer. "It's our policy to give value for money".

Computer Records, 21 Nipper Place, St Kensington, London W14 6LQ

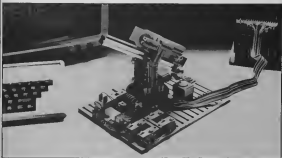
Robot kit

You may well know the name Radio Shack. From TV advertising for children's toys, now the company has released a computing package from which you can build a robot.

For 1985/86 you can buy all the components necessary to build one of six different robot forms. The six forms comprise a telescopic "track-a" robot arm, graphics board, simple sorting machine, lifting and sorting robot to solve the legendary Buddhist problem of the Tower of Hanoi, plotter which utilizes polar coordinates and a tracking mechanism for keeping a solar cell in the correct alignment with the peak of the sun.

Most popular items, however, can control the kit with an appropriate interface.

Radio Shack, Florist Ave, 29 Broomway Rd, Marston, South GL1 1PT



New robot kit from Radio Shack

Platform 5 for computers

W H Smith is expanding its computer shops with the opening of its first branch in a railway station. Opposite platform five at Waterloo, the shop will stay open from 8 am to 4 pm from Monday to Sunday.

Michael Waver, the 22-year-old manager of the Computer Shop, said: "We're very excited about this venture. About 100,000 travellers go through Waterloo station each day and we hope to attract many of them."

Four fully-trained staff will be based in the new shop and computers available include Spectrum +3, QL, BBC, Electron, Commodore 64 and C16 and MSX, as well as peripherals and software.

MSX starter packs

Thorn EMI has announced a set of offering starter packs for the MSX. The range of three packs include both new and pre-written programs for

accountants, education and business.

"MSX is a new system with software new to all dealers, and many MSX dealers are now in the home market," said Henry Rodgers, marketing manager. "With the starter packs we are giving the guarantee that all the software is of a high enough standard to meet the Thorn EMI Computer Software Division's requirements."

The same pack includes MSX's Les Play, Hunter from Bubble Bus, Quaker's First and Algebra's Blagger.

Thorn EMI, Thomson House, 291 Fenchurch Street, London EC3A 5NF.

Briefly

A computer centre is being held at the Kensington Hotel in Southwamp Lane, London W10 on November 26 at 8 pm. Organised by Crocker Computer Associates, visitors are being accepted from day-keepers as well as the public, and various personal and business machines will be on sale.

Crocker Computer Associates, 154 Tottenham Ct Rd, London W1P 8JY.

Jack to Blagden is now from Tynril Software. It's an educational text adventure aimed at the 11-12 years age group and has its basis in Jack and the Beanstalk, with several scenes made by Blagden, Alf Telford and others. More than 100 locations are included as well as a pronunciation guide and a book of various illustrations. Price: £6.95.

Parle Software, Pinnerwood, 45 Arden Rd, Pinner, Oxford OX7 1DU.

Velours for the BBC Spectrum is Computer Magic's latest title. You must escape through the streets in the safety of an elated where the modern have cannot reach you. Price: £7.95.

Computer Magic, 39 Bridge St, Welton on Thames, Surrey.

Seeling software is releasing Olympus in the Underworld for the Commodore 64. It's an arcade/adventure which involves a creature hunt through 120 different scenes. Price: £6.95. Country Cottage, also from Seeling, is for the Spectrum and Amstrad and is a two-player strategy game about

property. Price: £5.95 for Spectrum, £7.95 for Amstrad. Arrangement: East Berlin computer. Seeling's system layout: this is a real advantage for the Spectrum, costing £5.95.

Seeling Software, Gelford Rd, M412, Egham Rd, London W9 2PW.

Isma has brought out a cassette based Speed Sheet Calculator for the Commodore At £14.95, the program completely automates Isma's Card and Simple Accounts and includes a manual.

Isma, Unit 12, November Rd, Pennington, North York YO2 1AR.

Projector 1 is a business graphics, forecasting and presentation system for the BBC Spectrum. The Microdrive compatible cassette version complete with user manual included in the purchase price of £13.95.

McGraw Hill, Shopper's Range, 85, Abchurch Lane, London EC4A 3DF.

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SOFTWARE

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OF OUR 12 PAGE
CATALOGUE WITH
SCREEN SHOTS

Plumber's nightmare

Connect the tank to the tap with 56 pipes. Sounds easy?
You'll need logic and patience in this tricky game
by S. T. Neill

This game is based on those wooden chips found in Chinese quarters, where a trap full of chips with one missing is scrounged upon a set pattern by moving one chip at a time into the empty space.

In this program, an effort to avoid repetition, where ideas are used and not all the points need to be used or even covered.

In the top left corner of the screen there is a mark which must be contacted by the paper on the side to a tap in the bottom outer corner.

The risk and tap can be controlled by as many people as necessary. The more complete the team, the more power scored. Bonus points are awarded if the task is too complex to make.

The number of moves available is limited but your time isn't, so logical thinking is needed.

THE UNIVERSITY OF CHICAGO

- 1 variable border, screen and point values
- 2 ball of lime for imp scores
- 3 automatic starting and deletion of scoring line after the game
- 4 four skill levels
- 5 multi-players (no automatic timer)

Planes are selected as winners before each game. You must pick.

- ☐ vertical straight paper
- ☐ horizontal straight paper
- ☐ right-angled paper (2 of each kind in bunch)

The program should convert very easily to any micro with a 40 x 24 screen display as the BASIC is very straightforward. In general, screen and printer fonts would need to be changed.

I hope this game will be a welcome, quiet break from 'rapping' and 'mixing' games. But be warned it's not as easy as it sounds and can lead to frustration.

Phone number is 93-0700

[illegible]

- [illegible]

1820-1830	gth. playg. + music
1830-1840	poetry
1840-1850	poetry and prose
1850-1860	novels
1860-1870	novels, selection of poetry, poems
1870-1878	novels and occasional poetry + music
1878-1880	novels, short stories
1880-1890	novels, short stories
1890-1900	novels, short stories
1900-1910	novels, short stories
1910-1920	novels, short stories
1920-1930	novels, short stories
1930-1940	novels, short stories
1940-1950	novels, short stories
1950-1960	novels, short stories
1960-1970	novels, short stories
1970-1980	novels, short stories
1980-1990	novels, short stories
1990-2000	novels, short stories
2000-2010	novels, short stories
2010-2020	novels, short stories
2020-2030	novels, short stories
2030-2040	novels, short stories
2040-2050	novels, short stories
2050-2060	novels, short stories
2060-2070	novels, short stories
2070-2080	novels, short stories
2080-2090	novels, short stories
2090-2100	novels, short stories

Variables	
PFA(4)	array holding place type
PFA(4,0)	dimension of PFA array containing data
PFA(4,1)	array holding room numbers of places
PFA(4,2)	array holding type of place of PFA(4,3)
PFA(4,3)	array holding floor for printing places
CT(1)	array holding type names
CT(1,0)	array holding type names
FOA	dimension array for determining type room
FOA(1)	dimension array for determining type room
PL	number of places remaining
PL,PFA(4,1)	array holding key in for ground floor room number of place
RC	RC(PL) array, floor and character columns
CV	array containing variable for determining type of place
CT	array
CT(0),CT(1)	array used in calculating place
PL,PL,PFA(4,1)	array used in for name
PL,PL	for floor number



[illegible]

```

1300 i:=a:=b:=1000:loop:=10044+24070:read 0040:if not i:=a then
1310 read 0040
1320 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1330 read 0040: loop:= loop+1
1340 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1350 read 0040: loop:= loop+1
1360 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1370 i:=a:=b:=1000:loop:=10044+24070
1380 read 0040
1390 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1400 read 0040
1410 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1420 read 0040
1430 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1440 read 0040
1450 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1460 read 0040
1470 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1480 read 0040
1490 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1500 read 0040
1510 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1520 read 0040
1530 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1540 read 0040
1550 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1560 read 0040
1570 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1580 read 0040
1590 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1600 read 0040
1610 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1620 read 0040
1630 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1640 read 0040
1650 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1660 read 0040
1670 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1680 read 0040
1690 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1700 read 0040
1710 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1720 read 0040
1730 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1740 read 0040
1750 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1760 read 0040
1770 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1780 read 0040
1790 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1800 read 0040
1810 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1820 read 0040
1830 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1840 read 0040
1850 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1860 read 0040
1870 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1880 read 0040
1890 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1900 read 0040
1910 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1920 read 0040
1930 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1940 read 0040
1950 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1960 read 0040
1970 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
1980 read 0040
1990 go to 1300 if i:=a:=b:=1000:go to 1300:go to 1300:go to 1300:go to 1300
2000 read 0040

```


COULD THIS BE YOUR PROGRAM?



Is your program good enough to fill this spot?

Will your game be the next No. 1 hit?

Are you looking for worldwide marketing and top royalties?

Are you writing for leading computers such as Spectrum, CMB-64, Vic 20, ZX81, Amstrad, BBC etc?

Answer yes to any of these questions and we would like to hear from you.

Send your program on tape together with full instructions for that evaluation. Be sure to include computer type, memory, peripherals used and your name, address and telephone number.



R&R Software Ltd 5 Russell Street Gloucester GL1 1NE
Tel (0452) 502818


```

ter set"
59 PRINT AT 15,0;"N-New chara
cter";AT 16,0;"C-Clear grid";AT
11,0;"Y/Y=Cursor UP/DOWN";AT 1
2,0;"I-I=Flip bit";AT 17,0;"V=v
iew character set";AT 10,0;"J-R
eset character set"
61 PRINT AT 17,0;"E-Edit char
acter"
63 PLOT 0,100
65 DRAW 0+0,0
67 PRINT AT 9,1; INVERSE 1;"1
2345678"
69 LET p=0
71 PRINT AT p,9;"<"
73 LET a=INKEY$
75 IF a="0" OR a="9" THEN
80 SUB 105
77 IF INKEY$="v" OR INKEY$="V
" THEN GO SUB 147
79 IF INKEY$="C" OR INKEY$="c
" THEN PRINT AT p,9;" " GO TO
49
81 IF INKEY$="s" OR INKEY$="S
" THEN SAVE "CHR$"+CODE 51200,2
55+0; PRINT #0;"REWIND TAPE FOR
VERIFICATION"; VERIFY ""CODE :
CLS : GO TO 49
83 IF INKEY$="j" OR INKEY$="J
" THEN GO SUB 145
85 IF INKEY$="r" OR INKEY$="R
" THEN GO TO 113
87 IF INKEY$="n" OR INKEY$="N
" THEN GO TO 43
89 IF INKEY$="e" OR INKEY$="E
" THEN GO SUB 177
91 LET d=CODE INKEY$
93 IF d-48<1 OR d-48>8 THEN
GO TO 71
95 IF SCREEN$ (p,d-48)="0" TH
EN PRINT AT p,d-48; INK 4;"#";
BEEP .3,10; BEEP .1,3; GO TO 7
1
97 PRINT AT p,d-48; INK 2;"0"
99 BEEP .3,10
101 BEEP .1,3
103 GO TO 71
105 PRINT AT p,9;" "
107 LET p=p+(INKEY$="8" AND p<
7)-(INKEY$="9" AND p>0)
109 BEEP .2,2
111 RETURN
113 FOR n=0 TO 7
115 LET u=0
117 LET k=1
119 FOR j=0 TO 1 STEP -1
121 IF SCREEN$ (n,j)="#" THEN
LET u=u+k
123 LET k=k+k

```

```

125 NEXT j
127 POKE 151200+CODE d#*80+n,u
129 NEXT n
131 POKE 23487,200
133 PRINT AT 5,12;d#
135 FOR l=1 TO 200
137 NEXT k
139 POKE 23487,48
141 PRINT AT 5,12;" "
143 PRINT AT p,9;" "
145 GO TO 43
147 POKE 23487,200
149 CLS
151 FOR k=32 TO 127
153 PRINT CHR$ k;
155 NEXT k
157 POKE 23487,48
159 PAUSE 0
161 CLS
163 GO TO 49
165 INPUT "ARE YOU SURE? (Y/N)
"; LINE g#
167 IF g$="n" OR g$="N" THEN
GO TO 49
169 FOR n=0 TO 255+0
171 POKE 51200+n,PEEK (15348+n
)
173 NEXT n
175 GO TO 43
177 INPUT "CHARACTER TO BE EDI
TED "; LINE a#
179 IF LEN a#>1 THEN GO TO 17
7
181 FOR n=0 TO 7
183 PRINT AT n,1; INK 2;"00000
000"
185 NEXT n
187 POKE 23487,200
189 PRINT AT 21,0;d#
191 FOR n=0 TO 7
193 FOR q=0 TO 7
195 IF POINT (q,n)=1 THEN PRI
NT AT (7-n),q+1; INK 4;"#"
197 NEXT q
199 NEXT n
201 POKE 23487,48
203 PRINT AT 21,0;" "
205 RETURN
207 REM Character Generator
C Southall 1983
209 SAVE "CHAR GEN" LINE 1
211 BEEP 1,10
213 CLS
215 PRINT #0;"REWIND TAPE FOR
VERIFICATION"
217 VERIFY ""
219 BEEP 1,10
221 CLS
223 GO TO 19

```

Robin Hood TI-99/4A £7

Shannon Software, 10 Adams
Rd, Stockport, Cheshire SK4
5AL

This adventure comes in two parts. The first program loads the greater character definitions, and loads and runs the second. If you have a plotter, you can use CALL PLOT to follow program moves, unless the program itself won't load.

The second character set is essential for statistics and offered countless background notes, using a specially-developed programming technique. I predicted the same again. The game may be played using either commands or the keyboard, but not both.

Robin Hood is priced against a very low price. The first is an excellent plotter and graphics

mobile screen. They include the second's notes, data, and a falling apple.

The game is demanding, requiring you to consider the frequency of the water, (H2O) and various wind speed and direction (indicated by clouds) and the lowering action which depends upon the length of time that the fire's key is held down.

I found it a difficult and frustrating game. You must wait for the first points, wait in Robin's camp, and then (using the original, this one has some hints, and you'll need them).

This program needs 12K and Extended BASIC.

instructions	15%
graphics	41%
playable	66%
value for money	85%

★ ★ ★

The Crystal Frog 48K Spectrum £5.95

Kenex, 29 Colours Rd, Biele
Hill RU11 8BZ

A simple one line Mark and when loading screen leads to the introduction of the new printed adventure game that was the standard one line character set.

You use the computer to type and run in your quest of the Crystal Frog and return to the first one line character set. The Frog, with its description, appears for each location — so about 100% you will have to run all the locations and use various objects. Time will be spent as you follow paths through the country side (a castle and woods). Some things are gone on the

start and you must discover the significance to your quest. And since the program (Frog) is contained, you can SAVE the game on the played tape — should you wish.

After 28 turns I was being notified as a limited and contained a character to the level. I was never more referred to the state of the game — even though I had saved 9%.

Object is to get your name only. What are they and what are they? A highly boring, but

instructions	50%
graphics	40%
value for money	40%

★ ★

Peter Pan 48K Spectrum £5.95

Mable and Vaughan, 47
Bedford Sq, London WC1B 1DP

The arrival of a game called Peter Pan raised some questions in my house. What could be a better game than a narrative, but traditional, paragraph (if possible)?

The packaging is impressive. The case has a bright picture of Peter Pan and Captain Jack on the front. Inside, alongside the manual, is a copy of the story in paperback. If you are not sure enough with the story you are advised to read the book before playing.

The program is contained in one level of the game. Another well-known issue is displayed as the game program loads into RAM. However, after the game programme, two screens titled a long speech is displayed. It is a warning that although, with simple moves on the top of the screen to direct the hero, if the game crashed in the adventure, some real-time prompt have been added, some other memory is required, or making a decision.

Well, if you are an adventure game fan, then the story, the game, Peter Pan and Captain Jack should interest you.

instructions	40%
graphics	40%
playable	40%
value for money	80%

★ ★ ★

Peter Pan meets Robin Hood

You can now take the part of
one of these famous heroes.
Our reviewers have picked out
the best

Castle of Gems 32K BBC £5.70

MMB, 17 Cooks Green Rd,
Gusley DA16 4GB

I wish that my review from this company were actually for one of their games as their support and sold at a very reasonable price.

In this game you are charged with Robin Hood and go through the forest collecting gems.

There are ten small numbers of eleven of all types, ten, twelve, and thirteen, given and which the different local normal with mixed game in the background. They are a mix of (gem) but represented in a few different levels.

There are 100, that only you can use in the higher levels. There are some hints to help you in the game.

and you can reach the golden when there are on the game.

The interesting graphics are one of the distinctive features of this program. Priority of color, speed and sound effects are a well polished feel to the whole thing. The final few are some of the inclusion of new items or marks of the programs and in place are two of those that make you have to complete in all.

instructions	40%
graphics	70%
playable	60%
value for money	80%

★ ★ ★ ★ ★

Kentillo 48K Spectrum £5.95

Microgame, 124 JJA, Laverdon
Hill, Lincun LN11 8LZ

Kentillo is a graphically elegant but somewhat weak for Dinky Adventure. This is written in a very old machine code, with a conventional main program, which makes not only good 48K versions, equivalent and great. It is also the facility to look over a new location before you go there.

The directions are rather small but useful and useful, and the very presence of that and command.

Whether you find it addictive or not depends on your taste in play. The game has you lost in the role of the potential success of the success fully going to a village to seek the diamond ring (diamond who has been in the game). The background of Kentillo is a world of the world's worst (diamond), but it seems to be reached by diamond where there are no long and difficult, but for the time you have experienced them and tried to make the diamond, they're made up in level, and game quickly killed you.

Very much enjoyed, but perhaps with Mame's (diamond) player leader which appears in the end.

instructions	100%
graphics	100%
playable	80%
value for money	80%

★ ★ ★ ★ ★

The aliens are coming

The freedom of the galaxy is at stake and you, the pilot of a lone spaceship, must do battle with the dreaded alien invaders. There's plenty of action and no time to think in this game by Marcel Melito

If you like zapping ideas then you'll love this game. The aliens are coming and only you can stop them.

Far above the planet earth in the hazy ether of space you are my ship battles against the hordes of alien invaders emerging from their mother ship and heading toward you armed on destruction. You have only one laser against their wall

Weapons
 10 laser
 12 ion
 14 proton
 1600 beam
 1700 proton of beam
 1800 neutron beam
 1900 neutron
 2000 neutron
 2100 neutron
 2200 neutron
 2300 neutron
 2400 neutron
 2500 neutron
 2600 neutron
 2700 neutron
 2800 neutron
 2900 neutron
 3000 neutron
 3100 neutron
 3200 neutron
 3300 neutron
 3400 neutron
 3500 neutron
 3600 neutron
 3700 neutron
 3800 neutron
 3900 neutron
 4000 neutron
 4100 neutron
 4200 neutron
 4300 neutron
 4400 neutron
 4500 neutron
 4600 neutron
 4700 neutron
 4800 neutron
 4900 neutron
 5000 neutron
 5100 neutron
 5200 neutron
 5300 neutron
 5400 neutron
 5500 neutron
 5600 neutron
 5700 neutron
 5800 neutron
 5900 neutron
 6000 neutron
 6100 neutron
 6200 neutron
 6300 neutron
 6400 neutron
 6500 neutron
 6600 neutron
 6700 neutron
 6800 neutron
 6900 neutron
 7000 neutron
 7100 neutron
 7200 neutron
 7300 neutron
 7400 neutron
 7500 neutron
 7600 neutron
 7700 neutron
 7800 neutron
 7900 neutron
 8000 neutron
 8100 neutron
 8200 neutron
 8300 neutron
 8400 neutron
 8500 neutron
 8600 neutron
 8700 neutron
 8800 neutron
 8900 neutron
 9000 neutron
 9100 neutron
 9200 neutron
 9300 neutron
 9400 neutron
 9500 neutron
 9600 neutron
 9700 neutron
 9800 neutron
 9900 neutron
 10000 neutron

time goes by the number of your alien's distance and the fight becomes more tense.

The keys that you will need are Z which moves you left, C right, and, most important, M which fires your laser.

Game play
 100-150 alien's distance
 150-200 alien's distance
 200-250 alien's distance
 250-300 alien's distance
 300-350 alien's distance
 350-400 alien's distance
 400-450 alien's distance
 450-500 alien's distance
 500-550 alien's distance
 550-600 alien's distance
 600-650 alien's distance
 650-700 alien's distance
 700-750 alien's distance
 750-800 alien's distance
 800-850 alien's distance
 850-900 alien's distance
 900-950 alien's distance
 950-1000 alien's distance

100-150 alien's distance
 150-200 alien's distance
 200-250 alien's distance
 250-300 alien's distance
 300-350 alien's distance
 350-400 alien's distance
 400-450 alien's distance
 450-500 alien's distance
 500-550 alien's distance
 550-600 alien's distance
 600-650 alien's distance
 650-700 alien's distance
 700-750 alien's distance
 750-800 alien's distance
 800-850 alien's distance
 850-900 alien's distance
 900-950 alien's distance
 950-1000 alien's distance

```

4 REM SPACE FIGHT
5 PRINT "Z"
7 REM CONTROL
8 PRINT "ASTRO WARS"
9 PRINT
10 PRINT "INSTRUCTIONS"
11 PRINT
12 PRINT "THE U.F.O IS SENDING OUT INVADERS WITH A DEADLY MISSION TO KILL YOU."
13 PRINT "YOU MUST DEFEAT THEM BEFORE THEY DEFEAT YOU."
14 PRINT "OBJECT OF GAME IS TO SEE HOW LONG YOU CAN LAST."
15 PRINT "CONTROLS"
16 PRINT "Z=LEFT"
17 PRINT "C=RIGHT"
18 PRINT "M= FIRE"
19 PRINT "R=GOOD LUCK"
20 PRINT "PRESS ANY KEY"
21 GETIN IFIN="THEEND"
22 GETIN IFIN="THEEND"
23 FORI=0 TO 10000:GOTO 24
24 DIMS(4):S(0)=0:S(1)=0:S(2)=0:S(3)=0:S(4)=0
25 DEFNAYDI=INT(CS(DI)*76800/22)
26 DEFNKLID=SLDI*(YK2+7680)
27 G=0:G1=0:G2=0:G3=0:G4=0:G5=0:G6=0:G7=0:G8=0:G9=0:G10=0:G11=0:G12=0:G13=0:G14=0:G15=0:G16=0:G17=0:G18=0:G19=0:G20=0:G21=0:G22=0:G23=0:G24=0:G25=0:G26=0:G27=0:G28=0:G29=0:G30=0:G31=0:G32=0:G33=0:G34=0:G35=0:G36=0:G37=0:G38=0:G39=0:G40=0:G41=0:G42=0:G43=0:G44=0:G45=0:G46=0:G47=0:G48=0:G49=0:G50=0:G51=0:G52=0:G53=0:G54=0:G55=0:G56=0:G57=0:G58=0:G59=0:G60=0:G61=0:G62=0:G63=0:G64=0:G65=0:G66=0:G67=0:G68=0:G69=0:G70=0:G71=0:G72=0:G73=0:G74=0:G75=0:G76=0:G77=0:G78=0:G79=0:G80=0:G81=0:G82=0:G83=0:G84=0:G85=0:G86=0:G87=0:G88=0:G89=0:G90=0:G91=0:G92=0:G93=0:G94=0:G95=0:G96=0:G97=0:G98=0:G99=0:G100=0:G101=0:G102=0:G103=0:G104=0:G105=0:G106=0:G107=0:G108=0:G109=0:G110=0:G111=0:G112=0:G113=0:G114=0:G115=0:G116=0:G117=0:G118=0:G119=0:G120=0:G121=0:G122=0:G123=0:G124=0:G125=0:G126=0:G127=0:G128=0:G129=0:G130=0:G131=0:G132=0:G133=0:G134=0:G135=0:G136=0:G137=0:G138=0:G139=0:G140=0:G141=0:G142=0:G143=0:G144=0:G145=0:G146=0:G147=0:G148=0:G149=0:G150=0:G151=0:G152=0:G153=0:G154=0:G155=0:G156=0:G157=0:G158=0:G159=0:G160=0:G161=0:G162=0:G163=0:G164=0:G165=0:G166=0:G167=0:G168=0:G169=0:G170=0:G171=0:G172=0:G173=0:G174=0:G175=0:G176=0:G177=0:G178=0:G179=0:G180=0:G181=0:G182=0:G183=0:G184=0:G185=0:G186=0:G187=0:G188=0:G189=0:G190=0:G191=0:G192=0:G193=0:G194=0:G195=0:G196=0:G197=0:G198=0:G199=0:G200=0:G201=0:G202=0:G203=0:G204=0:G205=0:G206=0:G207=0:G208=0:G209=0:G210=0:G211=0:G212=0:G213=0:G214=0:G215=0:G216=0:G217=0:G218=0:G219=0:G220=0:G221=0:G222=0:G223=0:G224=0:G225=0:G226=0:G227=0:G228=0:G229=0:G230=0:G231=0:G232=0:G233=0:G234=0:G235=0:G236=0:G237=0:G238=0:G239=0:G240=0:G241=0:G242=0:G243=0:G244=0:G245=0:G246=0:G247=0:G248=0:G249=0:G250=0:G251=0:G252=0:G253=0:G254=0:G255=0:G256=0:G257=0:G258=0:G259=0:G260=0:G261=0:G262=0:G263=0:G264=0:G265=0:G266=0:G267=0:G268=0:G269=0:G270=0:G271=0:G272=0:G273=0:G274=0:G275=0:G276=0:G277=0:G278=0:G279=0:G280=0:G281=0:G282=0:G283=0:G284=0:G285=0:G286=0:G287=0:G288=0:G289=0:G290=0:G291=0:G292=0:G293=0:G294=0:G295=0:G296=0:G297=0:G298=0:G299=0:G300=0:G301=0:G302=0:G303=0:G304=0:G305=0:G306=0:G307=0:G308=0:G309=0:G310=0:G311=0:G312=0:G313=0:G314=0:G315=0:G316=0:G317=0:G318=0:G319=0:G320=0:G321=0:G322=0:G323=0:G324=0:G325=0:G326=0:G327=0:G328=0:G329=0:G330=0:G331=0:G332=0:G333=0:G334=0:G335=0:G336=0:G337=0:G338=0:G339=0:G340=0:G341=0:G342=0:G343=0:G344=0:G345=0:G346=0:G347=0:G348=0:G349=0:G350=0:G351=0:G352=0:G353=0:G354=0:G355=0:G356=0:G357=0:G358=0:G359=0:G360=0:G361=0:G362=0:G363=0:G364=0:G365=0:G366=0:G367=0:G368=0:G369=0:G370=0:G371=0:G372=0:G373=0:G374=0:G375=0:G376=0:G377=0:G378=0:G379=0:G380=0:G381=0:G382=0:G383=0:G384=0:G385=0:G386=0:G387=0:G388=0:G389=0:G390=0:G391=0:G392=0:G393=0:G394=0:G395=0:G396=0:G397=0:G398=0:G399=0:G400=0:G401=0:G402=0:G403=0:G404=0:G405=0:G406=0:G407=0:G408=0:G409=0:G410=0:G411=0:G412=0:G413=0:G414=0:G415=0:G416=0:G417=0:G418=0:G419=0:G420=0:G421=0:G422=0:G423=0:G424=0:G425=0:G426=0:G427=0:G428=0:G429=0:G430=0:G431=0:G432=0:G433=0:G434=0:G435=0:G436=0:G437=0:G438=0:G439=0:G440=0:G441=0:G442=0:G443=0:G444=0:G445=0:G446=0:G447=0:G448=0:G449=0:G450=0:G451=0:G452=0:G453=0:G454=0:G455=0:G456=0:G457=0:G458=0:G459=0:G460=0:G461=0:G462=0:G463=0:G464=0:G465=0:G466=0:G467=0:G468=0:G469=0:G470=0:G471=0:G472=0:G473=0:G474=0:G475=0:G476=0:G477=0:G478=0:G479=0:G480=0:G481=0:G482=0:G483=0:G484=0:G485=0:G486=0:G487=0:G488=0:G489=0:G490=0:G491=0:G492=0:G493=0:G494=0:G495=0:G496=0:G497=0:G498=0:G499=0:G500=0:G501=0:G502=0:G503=0:G504=0:G505=0:G506=0:G507=0:G508=0:G509=0:G510=0:G511=0:G512=0:G513=0:G514=0:G515=0:G516=0:G517=0:G518=0:G519=0:G520=0:G521=0:G522=0:G523=0:G524=0:G525=0:G526=0:G527=0:G528=0:G529=0:G530=0:G531=0:G532=0:G533=0:G534=0:G535=0:G536=0:G537=0:G538=0:G539=0:G540=0:G541=0:G542=0:G543=0:G544=0:G545=0:G546=0:G547=0:G548=0:G549=0:G550=0:G551=0:G552=0:G553=0:G554=0:G555=0:G556=0:G557=0:G558=0:G559=0:G560=0:G561=0:G562=0:G563=0:G564=0:G565=0:G566=0:G567=0:G568=0:G569=0:G570=0:G571=0:G572=0:G573=0:G574=0:G575=0:G576=0:G577=0:G578=0:G579=0:G580=0:G581=0:G582=0:G583=0:G584=0:G585=0:G586=0:G587=0:G588=0:G589=0:G590=0:G591=0:G592=0:G593=0:G594=0:G595=0:G596=0:G597=0:G598=0:G599=0:G600=0:G601=0:G602=0:G603=0:G604=0:G605=0:G606=0:G607=0:G608=0:G609=0:G610=0:G611=0:G612=0:G613=0:G614=0:G615=0:G616=0:G617=0:G618=0:G619=0:G620=0:G621=0:G622=0:G623=0:G624=0:G625=0:G626=0:G627=0:G628=0:G629=0:G630=0:G631=0:G632=0:G633=0:G634=0:G635=0:G636=0:G637=0:G638=0:G639=0:G640=0:G641=0:G642=0:G643=0:G644=0:G645=0:G646=0:G647=0:G648=0:G649=0:G650=0:G651=0:G652=0:G653=0:G654=0:G655=0:G656=0:G657=0:G658=0:G659=0:G660=0:G661=0:G662=0:G663=0:G664=0:G665=0:G666=0:G667=0:G668=0:G669=0:G670=0:G671=0:G672=0:G673=0:G674=0:G675=0:G676=0:G677=0:G678=0:G679=0:G680=0:G681=0:G682=0:G683=0:G684=0:G685=0:G686=0:G687=0:G688=0:G689=0:G690=0:G691=0:G692=0:G693=0:G694=0:G695=0:G696=0:G697=0:G698=0:G699=0:G700=0:G701=0:G702=0:G703=0:G704=0:G705=0:G706=0:G707=0:G708=0:G709=0:G710=0:G711=0:G712=0:G713=0:G714=0:G715=0:G716=0:G717=0:G718=0:G719=0:G720=0:G721=0:G722=0:G723=0:G724=0:G725=0:G726=0:G727=0:G728=0:G729=0:G730=0:G731=0:G732=0:G733=0:G734=0:G735=0:G736=0:G737=0:G738=0:G739=0:G740=0:G741=0:G742=0:G743=0:G744=0:G745=0:G746=0:G747=0:G748=0:G749=0:G750=0:G751=0:G752=0:G753=0:G754=0:G755=0:G756=0:G757=0:G758=0:G759=0:G760=0:G761=0:G762=0:G763=0:G764=0:G765=0:G766=0:G767=0:G768=0:G769=0:G770=0:G771=0:G772=0:G773=0:G774=0:G775=0:G776=0:G777=0:G778=0:G779=0:G780=0:G781=0:G782=0:G783=0:G784=0:G785=0:G786=0:G787=0:G788=0:G789=0:G790=0:G791=0:G792=0:G793=0:G794=0:G795=0:G796=0:G797=0:G798=0:G799=0:G800=0:G801=0:G802=0:G803=0:G804=0:G805=0:G806=0:G807=0:G808=0:G809=0:G810=0:G811=0:G812=0:G813=0:G814=0:G815=0:G816=0:G817=0:G818=0:G819=0:G820=0:G821=0:G822=0:G823=0:G824=0:G825=0:G826=0:G827=0:G828=0:G829=0:G830=0:G831=0:G832=0:G833=0:G834=0:G835=0:G836=0:G837=0:G838=0:G839=0:G840=0:G841=0:G842=0:G843=0:G844=0:G845=0:G846=0:G847=0:G848=0:G849=0:G850=0:G851=0:G852=0:G853=0:G854=0:G855=0:G856=0:G857=0:G858=0:G859=0:G860=0:G861=0:G862=0:G863=0:G864=0:G865=0:G866=0:G867=0:G868=0:G869=0:G870=0:G871=0:G872=0:G873=0:G874=0:G875=0:G876=0:G877=0:G878=0:G879=0:G880=0:G881=0:G882=0:G883=0:G884=0:G885=0:G886=0:G887=0:G888=0:G889=0:G890=0:G891=0:G892=0:G893=0:G894=0:G895=0:G896=0:G897=0:G898=0:G899=0:G900=0:G901=0:G902=0:G903=0:G904=0:G905=0:G906=0:G907=0:G908=0:G909=0:G910=0:G911=0:G912=0:G913=0:G914=0:G915=0:G916=0:G917=0:G918=0:G919=0:G920=0:G921=0:G922=0:G923=0:G924=0:G925=0:G926=0:G927=0:G928=0:G929=0:G930=0:G931=0:G932=0:G933=0:G934=0:G935=0:G936=0:G937=0:G938=0:G939=0:G940=0:G941=0:G942=0:G943=0:G944=0:G945=0:G946=0:G947=0:G948=0:G949=0:G950=0:G951=0:G952=0:G953=0:G954=0:G955=0:G956=0:G957=0:G958=0:G959=0:G960=0:G961=0:G962=0:G963=0:G964=0:G965=0:G966=0:G967=0:G968=0:G969=0:G970=0:G971=0:G972=0:G973=0:G974=0:G975=0:G976=0:G977=0:G978=0:G979=0:G980=0:G981=0:G982=0:G983=0:G984=0:G985=0:G986=0:G987=0:G988=0:G989=0:G990=0:G991=0:G992=0:G993=0:G994=0:G995=0:G996=0:G997=0:G998=0:G999=0:G1000=0:G1001=0:G1002=0:G1003=0:G1004=0:G1005=0:G1006=0:G1007=0:G1008=0:G1009=0:G1010=0:G1011=0:G1012=0:G1013=0:G1014=0:G1015=0:G1016=0:G1017=0:G1018=0:G1019=0:G1020=0:G1021=0:G1022=0:G1023=0:G1024=0:G1025=0:G1026=0:G1027=0:G1028=0:G1029=0:G1030=0:G1031=0:G1032=0:G1033=0:G1034=0:G1035=0:G1036=0:G1037=0:G1038=0:G1039=0:G1040=0:G1041=0:G1042=0:G1043=0:G1044=0:G1045=0:G1046=0:G1047=0:G1048=0:G1049=0:G1050=0:G1051=0:G1052=0:G1053=0:G1054=0:G1055=0:G1056=0:G1057=0:G1058=0:G1059=0:G1060=0:G1061=0:G1062=0:G1063=0:G1064=0:G1065=0:G1066=0:G1067=0:G1068=0:G1069=0:G1070=0:G1071=0:G1072=0:G1073=0:G1074=0:G1075=0:G1076=0:G1077=0:G1078=0:G1079=0:G1080=0:G1081=0:G1082=0:G1083=0:G1084=0:G1085=0:G1086=0:G1087=0:G1088=0:G1089=0:G1090=0:G1091=0:G1092=0:G1093=0:G1094=0:G1095=0:G1096=0:G1097=0:G1098=0:G1099=0:G1100=0:G1101=0:G1102=0:G1103=0:G1104=0:G1105=0:G1106=0:G1107=0:G1108=0:G1109=0:G1110=0:G1111=0:G1112=0:G1113=0:G1114=0:G1115=0:G1116=0:G1117=0:G1118=0:G1119=0:G1120=0:G1121=0:G1122=0:G1123=0:G1124=0:G1125=0:G1126=0:G1127=0:G1128=0:G1129=0:G1130=0:G1131=0:G1132=0:G1133=0:G1134=0:G1135=0:G1136=0:G1137=0:G1138=0:G1139=0:G1140=0:G1141=0:G1142=0:G1143=0:G1144=0:G1145=0:G1146=0:G1147=0:G1148=0:G1149=0:G1150=0:G1151=0:G1152=0:G1153=0:G1154=0:G1155=0:G1156=0:G1157=0:G1158=0:G1159=0:G1160=0:G1161=0:G1162=0:G1163=0:G1164=0:G1165=0:G1166=0:G1167=0:G1168=0:G1169=0:G1170=0:G1171=0:G1172=0:G1173=0:G1174=0:G1175=0:G1176=0:G1177=0:G1178=0:G1179=0:G1180=0:G1181=0:G1182=0:G1183=0:G1184=0:G1185=0:G1186=0:G1187=0:G1188=0:G1189=0:G1190=0:G1191=0:G1192=0:G1193=0:G1194=0:G1195=0:G1196=0:G1197=0:G1198=0:G1199=0:G1200=0:G1201=0:G1202=0:G1203=0:G1204=0:G1205=0:G1206=0:G1207=0:G1208=0:G1209=0:G1210=0:G1211=0:G1212=0:G1213=0:G1214=0:G1215=0:G1216=0:G1217=0:G1218=0:G1219=0:G1220=0:G1221=0:G1222=0:G1223=0:G1224=0:G1225=0:G1226=0:G1227=0:G1228=0:G1229=0:G1230=0:G1231=0:G1232=0:G1233=0:G1234=0:G1235=0:G1236=0:G1237=0:G1238=0:G1239=0:G1240=0:G1241=0:G1242=0:G1243=0:G1244=0:G1245=0:G1246=0:G1247=0:G1248=0:G1249=0:G1250=0:G1251=0:G1252=0:G1253=0:G1254=0:G1255=0:G1256=0:G1257=0:G1258=0:G1259=0:G1260=0:G1261=0:G1262=0:G1263=0:G1264=0:G1265=0:G1266=0:G1267=0:G1268=0:G1269=0:G1270=0:G1271=0:G1272=0:G1273=0:G1274=0:G1275=0:G1276=0:G1277=0:G1278=0:G1279=0:G1280=0:G1281=0:G1282=0:G1283=0:G1284=0:G1285=0:G1286=0:G1287=0:G1288=0:G1289=0:G1290=0:G1291=0:G1292=0:G1293=0:G1294=0:G1295=0:G1296=0:G1297=0:G1298=0:G1299=0:G1300=0:G1301=0:G1302=0:G1303=0:G1304=0:G1305=0:G1306=0:G1307=0:G1308=0:G1309=0:G1310=0:G1311=0:G1312=0:G1313=0:G1314=0:G1315=0:G1316=0:G1317=0:G1318=0:G1319=0:G1320=0:G1321=0:G1322=0:G1323=0:G1324=0:G1325=0:G1326=0:G1327=0:G1328=0:G1329=0:G1330=0:G1331=0:G1332=0:G1333=0:G1334=0:G1335=0:G1336=0:G1337=0:G1338=0:G1339=0:G1340=0:G1341=0:G1342=0:G1343=0:G1344=0:G1345=0:G1346=0:G1347=0:G1348=0:G1349=0:G1350=0:G1351=0:G1352=0:G1353=0:G1354=0:G1355=0:G1356=0:G1357=0:G1358=0:G1359=0:G1360=0:G1361=0:G1362=0:G1363=0:G1364=0:G1365=0:G1366=0:G1367=0:G1368=0:G1369=0:G1370=0:G1371=0:G1372=0:G1373=0:G1374=0:G1375=0:G1376=0:G1377=0:G1378=0:G1379=0:G1380=0:G1381=0:G1382=0:G1383=0:G1384=0:G1385=0:G1386=0:G1387=0:G1388=0:G1389=0:G1390=0:G1391=0:G1392=0:G1393=0:G1394=0:G1395=0:G1396=0:G1397=0:G1398=0:G1399=0:G1400=0:G1401=0:G1402=0:G1403=0:G1404=0:
```

VIC-20 PROGRAM

[illegible]



THE 6809 COLOUR SHOW

FOR DRAGON AND TANDY USERS

SATURDAY 17TH AND SUNDAY 18TH NOVEMBER

10 A.M. UNTIL 6 P.M.

THE ROYAL HORTICULTURAL HALLS

If you own a Dragon or Tandy colour computer this is **your** show.

The first ever show organised in the United Kingdom for these machines.

All the very latest hardware, software, interfaces and peripherals will be there. Your chance to get up to date, try and buy all that's new.

We'll also be organising events and competitions with great prizes. The manufacturers will be staffing advice centres to help with all your queries.

Exhibitors will have special offers on their products so you can **save money** too!

Large gangways and comfortable rest areas will make sure you can see everything and sit in comfort when you want.

This will be a show for the **whole family**, plenty to see and plenty to do.

If you want to miss the queues just clip the coupon below.

Computer Marketplace (Exhibitions) Ltd. Part of the Bushworth Sales Group, 20 Orange Street, London WC2H 7ED.

HOW TO GET THERE

The Royal Horticultural Halls are just off Victoria Street a few minutes walk from Victoria or Parliament Squares.

Buses 11, 24, 29, 70, 76 and 88 run up Victoria Street.

Mainline stations: Waterloo, Charing Cross and Victoria.

Underground stations: St. James park (District and Circle lines), Victoria (District, Circle and Victoria lines).

There is an NCP car park in Abingdon Street, a few minutes away.

To: Computer Marketplace (Exhibitions) Ltd, 20 Orange Street, London WC2H 7ED

Please rush me _____ (qty) adult tickets at £2 each and _____ (qty) tickets for under sixteen year olds at £1 each for the 6809 colour show. I enclose cheque to the value of £_____

Name _____

Address _____

Postcode _____ Telephone _____

6809 is the registered name of Motorola Ltd

You'll need to think hard and carefully as this Simon-type game gets progressively more difficult. By HCW regular, Steve Lucas

In this game, the computer displays a random sequence of coloured blocks in the four corners of the screen. You must try to repeat this sequence using the keys —

a y
c b

Each time you correctly repeat the sequence, a gem appears. To make the game more difficult, there is a time limit, which is selected at the beginning (1 = easy, 2 = hard).

Please please remember to check your spacing when typing in Amstrad listings. Make sure you leave a space between the command DATA and the first datum on the line.

How to navigate

- lower(0) always goes to lower case
- you will need to change all WHILE, UNTIL loops to REPEAT UNTIL loops (remembering that the condition for terminating the loop is at the top of the loop in the WHILE, UNTIL loop, but at the end with a REPEAT UNTIL loop) or a conditional GOTO
- the graphics blocks are laid up as a string of CHR(0-4). You can use any character you like
- replace sound commands as appropriate
- LOCATE sets the text cursor at X,Y coordinates — use print tab(0 x) or print at A,Y to approximate
- PEM selects colour used, PARE, selects background colour, INK selects colour of PEM from the multicoloured palette

How it works

- start random number generator at random position (dependent on seed)
- 40-60 messages
- 70 randomisation seeds
- 80 create block in a string of characters
- 90 select colours used
- 100 set timer/seconds
- 110-170 select difficulty
- 170-200 main control WHILE UNTIL loop
- 210 increment score
- 220-240 end of game
- 250-400 select random sequence
- 410-430 display sequence
- 430-450 user turn
- 460-490 display graphics as correct/incorrect
- 500-520 termination

Variables

- sc score
- seed(0) message
- a random sequence
- ss your sequence
- ss sequence of blocks held in string
- s check condition for loop
- ti time check
- 2% difficulty
- ch 0/5 of 16
- colx check position in string



[illegible]

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Thomson Holidays

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unforgettable memory joggers".

Jane Bird, *Sunday Times*

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conversing with me in French"
Alan McCann, *Your Computer*

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did not take nearly as long as we
had thought it would"

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disks comes like you found
something to do for every very
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are the most absorbing, most
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Get organized!

Tired of searching through magazines for a program you know you've seen before? P. Pantziarka's program helps you catalogue your library and put order in your life

As soon as you get a micro you find that your home starts to overflow with magazines and books. And of course sooner or later you'll want that little computer to help you keep track of what's where. There are of course several commercial programs available for a variety of uses and various levels of sophistication. This program is written specifically with cataloguing magazines in mind, although a few line changes could change that.

Variables

- 95,99,98 SUBJECT string, title entry and magazine entry
- 96 query string when searching entry
- 97 major string used in sub-routine
- 1 index counter used in data entry sub routine
- 2 index counter used in search sub routine
- 3 maximum value of 1 and number of items Di Matuszko
- 4 input from menu, also used in sub-routines

The program is auto-BLUN to save the data, so if you want to examine or change the listing remember not to use BLUN or you'll CLEAR the data. Use GOTO 60 instead to return the

Then on searching

The program should correct itself. The use of the string DIFFERENCE can really be corrected by increasing the value of 1. The use of strings can be increased or decreased by adjusting the number 15 in the DIM statement, though if this is changed the input change must be made in the other DIM statements.

Program

If you do want to wipe out your data to start a new index, option 3 of the menu will do that and return you to the menu.

It should be noted that each entry can be up to 15 characters in length. A typical entry is below: "PROG LISTING" This "CONCRETE" and Magazine "ACW 38". To search through the index select the option from the menu and you'll be asked to enter a single entry — title, subject or magazine but not all three at once. Also the user must be in exactly the same form as when it was stored.

How it works

- 1-99 DIFFERENCE string, or index register in 999, CLEAR all data
- 95-99 print menu
- 99-100 GOTO's and GOTO's
- 100-101 "SAVE INDEX"
- 100-102 print data sub routine
- 1000-1001 search index sub-routine

```

10000 "QUICK INDEX"
10001 BY P.PANTZIARKA
10002
10003 LET I=0
10004 LET T=0
10005 DIM S(15)
10006 DIM D(15)
10007 DIM Q(15)
10008 DIM C(15)
10009 DIM E(15)
10010 DIM F(15)
10011 DIM G(15)
10012 DIM H(15)
10013 DIM I(15)
10014 DIM J(15)
10015 DIM K(15)
10016 DIM L(15)
10017 DIM M(15)
10018 DIM N(15)
10019 DIM O(15)
10020 DIM P(15)
10021 DIM Q(15)
10022 DIM R(15)
10023 DIM S(15)
10024 DIM T(15)
10025 DIM U(15)
10026 DIM V(15)
10027 DIM W(15)
10028 DIM X(15)
10029 DIM Y(15)
10030 DIM Z(15)
10031 DIM AA(15)
10032 DIM AB(15)
10033 DIM AC(15)
10034 DIM AD(15)
10035 DIM AE(15)
10036 DIM AF(15)
10037 DIM AG(15)
10038 DIM AH(15)
10039 DIM AI(15)
10040 DIM AJ(15)
10041 DIM AK(15)
10042 DIM AL(15)
10043 DIM AM(15)
10044 DIM AN(15)
10045 DIM AO(15)
10046 DIM AP(15)
10047 DIM AQ(15)
10048 DIM AR(15)
10049 DIM AS(15)
10050 DIM AT(15)
10051 DIM AU(15)
10052 DIM AV(15)
10053 DIM AW(15)
10054 DIM AX(15)
10055 DIM AY(15)
10056 DIM AZ(15)
10057 DIM BA(15)
10058 DIM BB(15)
10059 DIM BC(15)
10060 DIM BD(15)
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10062 DIM BF(15)
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10064 DIM BH(15)
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10067 DIM BK(15)
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10072 DIM BP(15)
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10080 DIM BX(15)
10081 DIM BY(15)
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10083 DIM CA(15)
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10085 DIM CC(15)
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10088 DIM CF(15)
10089 DIM CG(15)
10090 DIM CH(15)
10091 DIM CI(15)
10092 DIM CJ(15)
10093 DIM CK(15)
10094 DIM CL(15)
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10096 DIM CN(15)
10097 DIM CO(15)
10098 DIM CP(15)
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10101 DIM CS(15)
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10104 DIM CV(15)
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10106 DIM CX(15)
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10108 DIM CZ(15)
10109 DIM DA(15)
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10116 DIM DH(15)
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10121 DIM DM(15)
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10505 DIM SG(15)
10506 DIM SH(15)
10507 DIM SI(15)
10508 DIM SJ(15)
10509 DIM SK(15)
10510 DIM SL(15)
10511 DIM SM(15)
10512 DIM SN(15)
10513 DIM SO(15)
10514 DIM SP(15)
10515 DIM SQ(15)
10516 DIM SR(15)
10517 DIM SS(15)
10518 DIM ST(15)
10519 DIM SU(15)
10520 DIM SV(15)
10521 DIM SW(15)
10522 DIM SX(15)
10523 DIM SY(15)
10524 DIM SZ(15)
10525 DIM TA(15)
10526 DIM TB(15)
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10532 DIM TH(15)
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10534 DIM TJ(15)
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10536 DIM TL(15)
10537 DIM TM(15)
10538 DIM TN(15)
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10543 DIM TS(15)
10544 DIM TT(15)
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10546 DIM TV(15)
10547 DIM TW(15)
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10549 DIM TY(15)
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10551 DIM UA(15)
10552 DIM UB(15)
10553 DIM UC(15)
10554 DIM UD(15)
10555 DIM UE(15)
10556 DIM UF(15)
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10559 DIM UI(15)
10560 DIM UJ(15)
10561 DIM UK(15)
10562 DIM UL(15)
10563 DIM UM(15)
10564 DIM UN(15)
10565 DIM UO(15)
10566 DIM UP(15)
10567 DIM UQ(15)
10568 DIM UR(15)
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10570 DIM UT(15)
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10573 DIM UX(15)
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10575 DIM UZ(15)
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10577 DIM VB(15)
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10579 DIM VD(15)
10580 DIM VE(15)
10581 DIM VF(15)
10582 DIM VG(15)
10583 DIM VH(15)
10584 DIM VI(15)
10585 DIM VJ(15)
10586 DIM VK(15)
10587 DIM VL(15)
10588 DIM VM(15)
10589 DIM VN(15)
10590 DIM VO(15)
10591 DIM VP(15)
10592 DIM VQ(15)
10593 DIM VR(15)
10594 DIM VS(15)
10595 DIM VT(15)
10596 DIM VU(15)
10597 DIM VV(15)
10598 DIM VW(15)
10599 DIM VX(15)
10600 DIM VY(15)
10601 DIM VZ(15)
10602 DIM WA(15)
10603 DIM WB(15)
10604 DIM WC(15)
10605 DIM WD(15)
10606 DIM WE(15)
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10615 DIM WN(15)
10616 DIM WO(15)
10617 DIM WP(15)
10618 DIM WQ(15)
10619 DIM WR(15)
10620 DIM WS(15)
10621 DIM WT(15)
10622 DIM WU(15)
10623 DIM WV(15)
10624 DIM WW(15)
10625 DIM WX(15)
10626 DIM WY(15)
10627 DIM WZ(15)
10628 DIM XA(15)
10629 DIM XB(15)
10630 DIM XC(15)
10631 DIM XD(15)
10632 DIM XE(15)
10633 DIM XF(15)
10634 DIM XG(15)
10635 DIM XH(15)
10636 DIM XI(15)
10637 DIM XJ(15)
10638 DIM XK(15)
10639 DIM XL(15)
10640 DIM XM(15)
10641 DIM XN(15)
10642 DIM XO(15)
10643 DIM XP(15)
10644 DIM XQ(15)
10645 DIM XR(15)
10646 DIM XS(15)
10647 DIM XT(15)
10648 DIM XU(15)
10649 DIM XV(15)
10650 DIM XW(15)
10651 DIM XX(15)
10652 DIM XY(15)
10653 DIM XZ(15)
10654 DIM YA(15)
10655 DIM YB(15)
10656 DIM YC(15)
10657 DIM YD(15)
10658 DIM YE(15)
10659 DIM YF(15)
10660 DIM YG(15)
10661 DIM YH(15)
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10666 DIM YM(15)
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10668 DIM YO(15)
10669 DIM YP(15)
10670 DIM YQ(15)
10671 DIM YR(15)
10672 DIM YS(15)
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10675 DIM YV(15)
10676 DIM YW(15)
10677 DIM YX(15)
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10679 DIM YZ(15)
10680 DIM ZA(15)
10681 DIM ZB(15)
10682 DIM ZC(15)
10683 DIM ZD(15)
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10685 DIM ZF(15)
10686 DIM ZG(15)
10687 DIM ZH(15)
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10690 DIM ZK(15)
10691 DIM ZL(15)
10692 DIM ZM(15)
10693 DIM ZN(15)
10694 DIM ZO(15)
10695 DIM ZP(15)
10696 DIM ZQ(15)
10697 DIM ZR(15)
10698 DIM ZS(15)
10699 DIM ZT(15)
10700 DIM ZU(15)
10701 DIM ZV(15)
10702 DIM ZW(15)
10703 DIM ZX(15)
10704 DIM ZY(15)
10705 DIM ZZ(15)
10706
10707 "ENTER ONE ITEM TO BE
10708 INDEX"
10709
10710 INPUT Q$
10711 LET A=LEN(Q$)
10712 IF A=0 THEN GOTO 10713
10713 FOR I=1 TO A
10714 LET B=Q$(I)
10715 NEXT I
10716 LET C=" "
10717 IF C=B THEN GOTO 10718
10718 IF C=" " THEN GOTO 10719
10719 IF C="X" THEN GOTO 10720
10720 IF C="Y" THEN GOTO 10721
10721 IF C="Z" THEN GOTO 10722
10722 IF C="A" THEN GOTO 10723
10723 IF C="B" THEN GOTO 10724
10724 IF C="C" THEN GOTO 10725
10725 IF C="D" THEN GOTO 10726
10726 IF C="E" THEN GOTO 10727
10727 IF C="F" THEN GOTO 10728
10728 IF C="G" THEN GOTO 10729
10729 IF C="H" THEN GOTO 10730
10730 IF C="I" THEN GOTO 10731
10731 IF C="J" THEN GOTO 10732
10732 IF C="K" THEN GOTO 10733
10733 IF C="L" THEN GOTO 10734
10734 IF C="M" THEN GOTO 10735
10735 IF C="N" THEN GOTO 10736
10736 IF C="O" THEN GOTO 10737
10737 IF C="P" THEN GOTO 10738
10738 IF C="Q" THEN GOTO 10739
10739 IF C="R" THEN GOTO 10740
10740 IF C="S" THEN GOTO 10741
10741 IF C="T" THEN GOTO 10742
10742 IF C="U" THEN GOTO 10743
10743 IF C="V" THEN GOTO 10744
10744 IF C="W" THEN GOTO 10745
10745 IF C="X" THEN GOTO 10746
10746 IF C="Y" THEN GOTO 10747
10747 IF C="Z" THEN GOTO 10748
10748 IF C="A" THEN GOTO 10749
10749 IF C="B" THEN GOTO 10750
10750 IF C="C" THEN GOTO 10751
10751 IF C="D" THEN GOTO 10752
10752 IF C="E" THEN GOTO 10753
10753 IF C="F" THEN GOTO 10754
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10755 IF C="H" THEN GOTO 10756
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10757 IF C="J" THEN GOTO 10758
10758 IF C="K" THEN GOTO 10759
10759 IF C="L" THEN GOTO 10760
10760 IF C="M" THEN GOTO 10761
10761 IF C="N" THEN GOTO 10762
10762 IF C="O" THEN GOTO 10763
10763 IF C="P" THEN GOTO 10764
10764 IF C="Q" THEN GOTO 10765
10765 IF C="R" THEN GOTO 10766
10766 IF C="S" THEN GOTO 10767
10767 IF C="T" THEN GOTO 10768
10768 IF C="U" THEN GOTO 10769
10769 IF C="V" THEN GOTO 10770
10770 IF C="W" THEN GOTO 10771
10771 IF C="X" THEN GOTO 10772
10772 IF C="Y" THEN GOTO 10773
10773 IF C="Z" THEN GOTO 10774
10774 IF C="A" THEN GOTO 10775
10775 IF C="B" THEN GOTO 10776
10776 IF C="C" THEN GOTO 10777
10777 IF C="D" THEN GOTO 10778
10778 IF C="E" THEN GOTO 10779
10779 IF C="F" THEN GOTO 10780
10780 IF C="G" THEN GOTO 10781
10781 IF C="H" THEN GOTO 10782
10782 IF C="I" THEN GOTO 10783
10783 IF C="J" THEN GOTO 10784
10784 IF C="K" THEN GOTO 10785
10785 IF C="L" THEN GOTO 10786
10786 IF C="M" THEN GOTO 10787
10787 IF C="N" THEN GOTO 10788
10788 IF C="O" THEN GOTO 10789
10789 IF C="P" THEN GOTO 10790
10790 IF C="Q" THEN GOTO 10791
10791 IF C="R" THEN GOTO 10792
10792 IF C="S" THEN GOTO 10793
10793 IF C="T" THEN GOTO 10794
10794 IF C="U" THEN GOTO 10795
10795 IF C="V" THEN GOTO 10796
10796 IF C="W" THEN GOTO 10797
10797 IF C="X" THEN GOTO 10798
10798 IF C="Y" THEN GOTO 10799
10799 IF C="Z" THEN GOTO 10800
10800 IF C="A" THEN GOTO 10801
10801 IF C="B" THEN GOTO 10802
10802 IF C="C" THEN GOTO 10803
10803 IF C="D" THEN GOTO 10804
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10808 IF C="I" THEN GOTO 10809
10809 IF C="J" THEN GOTO 10810
10810 IF C="K" THEN GOTO 10811
10811 IF C="L" THEN GOTO 10812
10812 IF C="M" THEN GOTO 10813
10813 IF C="N" THEN GOTO 10814
10814 IF C="O" THEN GOTO 10815
10815 IF C="P" THEN GOTO 10816
10816 IF C="Q" THEN GOTO 10817
10817 IF C="R" THEN GOTO 10818
10818 IF C="S" THEN GOTO 10819
10819 IF C="T" THEN GOTO 10820
10820 IF C="U" THEN GOTO 10821
10821 IF C="V" THEN GOTO 10822
10822 IF C="W" THEN GOTO 10823
10823 IF C="X" THEN GOTO 10824
10824 IF C="Y" THEN GOTO 10825
10825 IF C="Z" THEN GOTO 10826
10826 IF C="A" THEN GOTO 10827
10827 IF C="B" THEN GOTO 10828
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10829 IF C="D" THEN GOTO 10830
10830 IF C="E" THEN GOTO 10831
10831 IF C="F" THEN GOTO 10832
10832 IF C="G" THEN GOTO 10833
10833 IF C="H" THEN GOTO 10834
10834 IF C="I" THEN GOTO 10835
10835 IF C="J" THEN GOTO 10836
10836 IF C="K" THEN GOTO 10837
10837 IF C="L" THEN GOTO 10838
10838 IF C="M" THEN GOTO 10839
10839 IF C="N" THEN GOTO 10840
10840 IF C="O" THEN GOTO 10841
10841 IF C="P" THEN GOTO 10842
10842 IF C="Q" THEN GOTO 108
```

**Imagine
you're a
snake — and
you're
hungry...**

As each piece of food is eaten, the snake's body contracts in length and starts moving forward, then making a new

Take care when entering the data statements in that listing so they make up several machine code columns in the program. One small mistake could ruin everything. Before the program is executed, statements of individual

[illegible][illegible]

ATARI PROGRAM

[illegible][illegible]

GOODEBYTE

Abstract

	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915	1914	1913	1912	1911	1910	1909	1908	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893	1892	1891	1890	1889	1888	1887	1886	1885	1884	1883	1882	1881	1880	1879	1878	1877	1876	1875	1874	1873	1872	1871	1870	1869	1868	1867	1866	1865	1864	1863	1862	1861	1860	1859	1858	1857	1856	1855	1854	1853	1852	1851	1850	1849	1848	1847	1846	1845	1844	1843	1842	1841	1840	1839	1838	1837	1836	1835	1834	1833	1832	1831	1830	1829	1828	1827	1826	1825	1824	1823	1822	1821	1820	1819	1818	1817	1816	1815	1814	1813	1812	1811	1810	1809	1808	1807	1806	1805	1804	1803	1802	1801	1800	1799	1798	1797	1796	1795	1794	1793	1792	1791	1790	1789	1788	1787	1786	1785	1784	1783	1782	1781	1780	1779	1778	1777	1776	1775	1774	1773	1772	1771	1770	1769	1768	1767	1766	1765	1764	1763	1762	1761	1760	1759	1758	1757	1756	1755	1754	1753	1752	1751	1750	1749	1748	1747	1746	1745	1744	1743	1742	1741	1740	1739	1738	1737	1736	1735	1734	1733	1732	1731	1730	1729	1728	1727	1726	1725	1724	1723	1722	1721	1720	1719	1718	1717	1716	1715	1714	1713	1712	1711	1710	1709	1708	1707	1706	1705	1704	1703	1702	1701	1700	1699	1698	1697	1696	1695	1694	1693	1692	1691	1690	1689	1688	1687	1686	1685	1684	1683	1682	1681	1680	1679	1678	1677	1676	1675	1674	1673	1672	1671	1670	1669	1668	1667	1666	1665	1664	1663	1662	1661	1660	1659	1658	1657	1656	1655	1654	1653	1652	1651	1650	1649	1648	1647	1646	1645	1644	1643	1642	1641	1640	1639	1638	1637	1636	1635	1634	1633	1632	1631	1630	1629	1628	1627	1626	1625	1624	1623	1622	1621	1620	1619	1618	1617	1616	1615	1614	1613	1612	1611	1610	1609	1608	1607	1606	1605	1604	1603	1602	1601	1600	1599	1598	1597	1596	1595	1594	1593	1592	1591	1590	1589	1588	1587	1586	1585	1584	1583	1582	1581	1580	1579	1578	1577	1576	1575	1574	1573	1572	1571	1570	1569	1568	1567	1566	1565	1564	1563	1562	1561	1560	1559	1558	1557	1556	1555	1554	1553	1552	1551	1550	1549	1548	1547	1546	1545	1544	1543	1542	1541	1540	1539	1538	1537	1536	1535	1534	1533	1532	1531	1530	1529	1528	1527	1526	1525	1524	1523	1522	1521	1520	1519	1518	1517	1516	1515	1514	1513	1512	1511	1510	1509	1508	1507	1506	1505	1504	1503	1502	1501	1500	1499	1498	1497	1496	1495	1494	1493	1492	1491	1490	1489	1488	1487	1486	1485	1484	1483	1482	1481	1480	1479	1478	1477	1476	1475	1474	1473	1472	1471	1470	1469	1468	1467	1466	1465	1464	1463	1462	1461	1460	1459	1458	1457	1456	1455	1454	1453	1452	1451	1450	1449	1448	1447	1446	1445	1444	1443	1442	1441	1440	1439	1438	1437	1436	1435	1434	1433	1432	1431	1430	1429	1428	1427	1426	1425	1424	1423	1422	1421	1420	1419	1418	1417	1416	1415	1414	1413	1412	1411	1410	1409	1408	1407	1406	1405	1404	1403	1402	1401	1400	1399	1398	1397	1396	1395	1394	1393	1392	1391	1390	1389	1388	1387	1386	1385	1384	1383	1382	1381	1380	1379	1378	1377	1376	1375	1374	1373	1372	1371	1370	1369	1368	1367	1366	1365	1364	1363	1362	1361	1360	1359	1358	1357	1356	1355	1354	1353	1352	1351	1350	1349	1348	1347	1346	1345	1344	1343	1342	1341	1340	1339	1338	1337	1336	1335	1334	1333	1332	1331	1330	1329	1328	1327	1326	1325	1324	1323	1322	1321	1320	1319	1318	1317	1316	1315	1314	1313	1312	1311	1310	1309	1308	1307	1306	1305	1304	1303	1302	1301	1300	1299	1298	1297	1296	1295	1294	1293	1292	1291	1290	1289	1288	1287	1286	1285	1284	1283	1282	1281	1280	1279	1278	1277	1276	1275	1274	1273	1272	1271	1270	1269	1268	1267	1266	1265	1264	1263	1262	1261	1260	1259	1258	1257	1256	1255	1254	1253	1252	1251	1250	1249	1248	1247	1246	1245	1244	1243	1242	1241	1240	1239	1238	1237	1236	1235	1234	1233	1232	1231	1230	1229	1228	1227	1226	1225	1224	1223	1222	1221	1220	1219	1218	1217	1216	1215	1214	1213	1212	1211	1210	1209	1208	1207	1206	1205	1204	1203	1202	1201	1200	1199	1198	1197	1196	1195	1194	1193	1192	1191	1190	1189	1188	1187	1186	1185	1184	1183	1182	1181	1180	1179	1178	1177	1176	1175	1174	1173	1172	1171	1170	1169	1168	1167	1166	1165	1164	1163	1162	1161	1160	1159	1158	1157	1156	1155	1154	1153	1152	1151	1150	1149	1148	1147	1146	1145	1144	1143	1142	1141	1140	1139	1138	1137	1136	1135	1134	1133	1132	1131	1130	1129	1128	1127	1126	1125	1124	1123	1122	1121	1120	1119	1118	1117	1116	1115	1114	1113	1112	1111	1110	1109	1108	1107	1106	1105	1104	1103	1102	1101	1100	1099	1098	1097	1096	1095	1094	1093	1092	1091	1090	1089	1088	1087	1086	1085	1084	1083	1082	1081	1080	1079	1078	1077	1076	1075	1074	1073	1072	1071	1070	1069	1068	1067	1066	1065	1064	1063	1062	1061	1060	1059	1058	1057	1056	1055	1054	1053	1052	1051	1050	1049	1048	1047	1046	1045	1044	1043	1042	1041	1040	1039	1038	1037	1036	1035	1034	1033	1032	1031	1030	1029	1028	1027	1026	1025	1024	1023	1022	1021	1020	1019	1018	1017	1016	1015	1014	1013	1012	1011	1010	1009	1008	1007	1006	1005	1004	1003	1002	1001	1000	999	998	997	996	995	994	993	992	991	990	989	988	987	986	985	984	983	982	981	980	979	978	977	976	975	974	973	972	971	970	969	968	967	966	965	964	963	962	961	960	959	958	957	956	955	954	953	952	951	950	949	948	947	946	945	944	943	942	941	940	939	938	937	936	935	934	933	932	931	930	929	928	927	926	925	924	923	922	921	920	919	918	917	916	915	914	913	912	911	910	909	908	907	906	905	904	903	902	901	900	899	898	897	896	895	894	893	892	891	890	889	888	887	886	885	884	883	882	881	880	879	878	877	876	875	874	873	872	871	870	869	868	867	866	865	864	863	862	861	860	859	858	857	856	855	854	853	852	851	850	849	848	847	846	845	844	843	842	841	840	839	838	837	836	835	834	833	832	831	830	829	828	827	826	825	824	823	822	821	820	819	818	817	816	815	814	813	812	811	810	809	808	807	806	805	804	803	802	801	800	799	798	797	796	795	794	793	792	791	790	789	788	787	786	785	784	783	782	781	780	779	778	777	776	775	774	773	772	771	770	769	768	767	766	765	764	763	762	761	760	759	758	757	756	755	754	753	752	751	750	749	748	747	746	745	744	743	742	741	740	739	738	737	736	735	734	733	732	731	730	729	728	727	726	725	724	723	722	721	720	719	718	717	716	715	714	713	712	711	710	709	708	707	706	705	704	703	702	701	700	699	698	697	696	695	694	693	692	691	690	689	688	687	686	685	684	683	682	681	680	679	678	677	676	675	674	673	672	671	670	669	668	667	666	665	664	663	662	661	660	659	658	657	656	655	654	653	652	651	650	649	648	647	646	645	644	643	642	641	640	639	638	637	636	635	634	633	632	631	630	629	628	627	626	625	624	623	622	621	620	619	618	617	616	615	614	613	612	611	610	609	608	607	606	605	604	603	602	601	600	599	598	597	596	595	594	593	592	591	590	589	588	587	586	585	584	583	582	581	580	579	578	577	576	575	574	573	572	571	570	569	568	567	566	565	56
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1997-1998

[illegible][illegible]

**STRENGTHENING THE
CAPACITY OF THE
JUDICIAL SYSTEM**

THESE RESULTS WERE REPRODUCED IN THE
FOLLOWING STUDY BY THE SAME RESEARCHERS

Abstract

**SEND DISCOUNT TO
PROPERTY**

Lantern Games That Shine

SOFTWARE FOR THE TI 99 4A

NOW AVAILABLE...NEW FULL COLOUR PAGES
AVAILABLE NOW!

[illegible]

Anytime Action in English: How
with Tiger into the system and its
different about Tiger's graphics
and more...



DRIVE-THRU **WOLF** **ROB** **BARON** **15.20**
Drive through these hairy woods
and there will be all the
you can get up the hills. Drive
down the hillside.



Crazy Carver (X-Box) \$3.99
You are the Crazy Carver and must face a horde of zombies. Run, jump, swing all biological weapons, keep your gun, knives and balls of fire. Support graphics and animation. A game you can't stop watching.

1000

LANTERN 4 BATTENING BOLD TURTLES
KING TIGER BOO

HOW COMPETITIVE ARE YOU? 4 November 1994, Page D1

Buy my fizzy pop

Now's the time to take on some responsibility by running a fizzy drinks stand for a week. Peter Wiseman's program puts you into the competitive street-corner retail trade

There! It's finally work being a top limonade seller, trying to sell more drinks than Mr Vix across the road. Then there's Mr Bubbles round the corner, selling in the shade with his new Triple Tonic Bubbles.

I didn't do too well last week when we had a wet spell that lasted for six days. All my profits got washed down. Do you think you can do better?

Well, here's your chance because you are taking over Fizzy Pop stall for a week. So get ordering your drinks, putting up the price list and posters, and please be nice to the customers. I don't want to return to find a customer anywhere.

I'm going now for my week's holiday. Good luck! You never know, you might be a million one next week!

Fizzy Pop was written on a Dragon 10 taking just under 7K. Full instructions are included in the program. Just type in the program and GO! It's just like a normal BASIC program. There is a short

Variables

M00-01 AM-03
A-01 normal air
P00-04 points
P00-05 (optional) customers
P00-06 points washed down
F number of stalls
D day
TSP temperature
A time for stall
W weather
L00-05 number of cups of limonade
C00-04 number of cups of orangeade
C00-04 number of cups of player
H00-01 price of limonade per cup
O00-01 price of orangeade per cup
C00-04 price of player per cup
L00-04 amount of limonade sold
O00-04 amount of orangeade sold
C00-04 amount of player sold

machine code routine starting at location 31000 which is 36 bytes long. The routine is used to simulate the effect of rain

falling from a cloud. The effect is achieved by generating a number under the cloud. Then they are cleared off the

How it works

01 random number for A-01
20-30 same for C-04
30-50 draw file screen
50-100 instructions
140-200 ask for number of players
200-300 set up variables
300-400 print the day
400-500 buying routine
500-600 point players work
600-650 alpha prices
650-700 close weather position
7100 plays program in The Sun
1000 plays The Sun Has-Got His
-100 On
1100 plays rain for steady weather
1200-1400 print weather and temperatures
1400-1600 work out how much drink sold
1600-1700 print end of day work
1700 close player
1800-1900 check for end of week
1900-2000 end of week
2000-2100 change M00 to X2 with decimal point

screen. After about 50 rain-drops have fallen from the cloud, a rain is played.

There is a short sub-routine to simulate Mr Vix and put in a decimal point. E.G. If M (1) was 3000, then X2 would be "30.00" after C00-05 P00-06

This is done by

POKE 1040 = RND(1)

If the variable W is 1 (heavy rain) then another random is printed. The raindrops are then scrolled diagonally by

EXEC 30000

Instructions

It should be fairly easy to convert Fizzy Pop to other machines. The machine code is only for the graphics, so is not really necessary. You can make up your own input/output routines. PRINT is a full Dragon way of PRINTing in different places on the screen. PRINT @00 is the top left hand corner. PRINT @ 211, "" is the bottom right hand corner.



DISCUSSION

[illegible]

Look closely at your Amstrad

Brian Lewis shows you in detail how this keyboard organ program and ASCII generator works. Cross refer to your user manual

This program demonstrates many of the Amstrad's advanced features while giving a useful insight into the inner workings of ASCII code. It's a keyboard organ program and ASCII generator.

The program is split into two parts: lines 120 to 180 produce the first screen, and by pressing any key — including break — a musical note and the ASCII code associated with it are produced. When more than 99 notes are recorded, part two of the program (lines 180-194) plays all 99 notes consecutively with three notes.

Next, all variables have been printed in lower case. Again, loops have been entered by four spaces if more than one space is left in a specified line.

Thus has been done so that you can follow the program's logic easily and it is recommended that it is adopted as a standard on all Amstrad public domain programs.

Variables

- 1. mod note
- 2. high note (p=10)
- 3. low note (p=10)
- 4. mod strng
- 5. note variable 1-99
- 6. value of key pressed
- 7. ASCII value of key pressed
- 8. toggle between the two screens

How it works

1. Create reference set for Amstrad core manual

100 Define ch 8, p 10 — set all variables to origin values to save memory. Top replacing Define with Def and not program by typing in and not print ("") to save memory saving

110 (Loop ch 8, p 50, ch 3, p 4 changes print note width, i.e. sets column, row steps to column 0-14, 20, 30 row when using note 10

120 (Loop ch 8, p 10, using constant used for printing to window #1. Every 10 = 9 seconds. See also lines 180-194

130 (Loop ch 8, p 20, mode 0 = 10 channels, mode 1 = 40

channels, mode 2 = 40 columns

140-150 Window ch 8, p 10 screen window command. Line 140 opens a window at column 0 and row 0. The ASCII code independently of row of screen. Line 150 opens a window at bottom right of screen only and displays, in this example, line 160-170

160-170 Window to look, ch 8, p 10, variable should include #1, 12, 20, 3, 10

180-190 For ch 8, p 14 sets pen for window 2 to set 1. Mode 1 constant is stored so set 1 is default colour yellow

190-200 Window to look ch 8, p 14 constant should read For #1, 2 and For 1, 2

210-220 While, While ch 8, p 10 loop command which increments when a command is true, ie b=100

230-240 Window to look window 1, page 1, ASCII characters should read For 1 = CTRL(A)

250-260 For ch 8, p 10 loop command to look 40 columns notes

270-280 row windows are used again but with different

columns. In that mode there is a choice of four out of a possible 17. Try using ch #1 or #2, i.e. type 1401 #1 to see what happens after changing row of program. Window #1 is set 1, window #2 is set 2 to defaulting to set and light blue

290 — means the keyboard buffer is flushed during execution of program

300-310 plays all 99 notes consecutively with the loop and repeat command. Particularly use of synchronous play, to get a feeling of life and movement. Try putting notes back into synchronous with the comparison in one window for more synchronisation possibly. Ch 8, p 4

400 prints ASCII code for all three rows

410-420 (Loop defaults to value 4 if not specified. Max number is 7 if no window is used. Compare from 400 to 420-430

440-450 print the column and three rows again with screen 1

460-470 print three messages sequentially in the #2 window

280 WINDOW 01,0,40,3,10
290 WINDOW 02,00,40,24,24
300 PEEK 01,0
310 PEEK 02,0

320 FOR 0=0 TO 20
330 NEWPAGE

340 PRINT
350 PRINT

360 PRINT
370 PRINT 01,0,0,0,0,0

380 PRINT 02,0,0,0
390 PRINT 03,0,0,0,0,0

400 PRINT 04,0,0,0,0,0
410 PRINT 05,0,0,0,0,0

420 PRINT 06,0,0,0,0,0
430 PRINT 07,0,0,0,0,0

440 PRINT
450 PRINT 08,0,0,0,0,0

460 PRINT 09,0,0,0,0,0
470 PRINT 10,0,0,0,0,0

480 PRINT 11,0,0,0,0,0
490 PRINT 12,0,0,0,0,0

500 PRINT 13,0,0,0,0,0
510 PRINT 14,0,0,0,0,0

520 PRINT 15,0,0,0,0,0
530 PRINT 16,0,0,0,0,0

540 PRINT 17,0,0,0,0,0
550 PRINT 18,0,0,0,0,0

560 PRINT 19,0,0,0,0,0
570 PRINT 20,0,0,0,0,0

580 PRINT 21,0,0,0,0,0
590 PRINT 22,0,0,0,0,0

600 PRINT 23,0,0,0,0,0
610 PRINT 24,0,0,0,0,0

620 PRINT 25,0,0,0,0,0
630 PRINT 26,0,0,0,0,0

640 PRINT 27,0,0,0,0,0
650 PRINT 28,0,0,0,0,0

660 PRINT 29,0,0,0,0,0
670 PRINT 30,0,0,0,0,0

680 PRINT 31,0,0,0,0,0
690 PRINT 32,0,0,0,0,0

700 PRINT 33,0,0,0,0,0
710 PRINT 34,0,0,0,0,0

720 PRINT 35,0,0,0,0,0
730 PRINT 36,0,0,0,0,0

740 PRINT 37,0,0,0,0,0
750 PRINT 38,0,0,0,0,0

760 PRINT 39,0,0,0,0,0
770 PRINT 40,0,0,0,0,0

780 PRINT 41,0,0,0,0,0
790 PRINT 42,0,0,0,0,0

800 PRINT 43,0,0,0,0,0
810 PRINT 44,0,0,0,0,0

820 PRINT 45,0,0,0,0,0
830 PRINT 46,0,0,0,0,0

840 PRINT 47,0,0,0,0,0
850 PRINT 48,0,0,0,0,0

860 PRINT 49,0,0,0,0,0
870 PRINT 50,0,0,0,0,0

880 PRINT 51,0,0,0,0,0
890 PRINT 52,0,0,0,0,0

900 PRINT 53,0,0,0,0,0
910 PRINT 54,0,0,0,0,0

920 PRINT 55,0,0,0,0,0
930 PRINT 56,0,0,0,0,0

940 PRINT 57,0,0,0,0,0
950 PRINT 58,0,0,0,0,0

960 PRINT 59,0,0,0,0,0
970 PRINT 60,0,0,0,0,0

980 PRINT 61,0,0,0,0,0
990 PRINT 62,0,0,0,0,0

1000 PRINT 63,0,0,0,0,0
1010 PRINT 64,0,0,0,0,0

1020 PRINT 65,0,0,0,0,0
1030 PRINT 66,0,0,0,0,0

1040 PRINT 67,0,0,0,0,0
1050 PRINT 68,0,0,0,0,0

1060 PRINT 69,0,0,0,0,0
1070 PRINT 70,0,0,0,0,0

1080 PRINT 71,0,0,0,0,0
1090 PRINT 72,0,0,0,0,0

1100 PRINT 73,0,0,0,0,0
1110 PRINT 74,0,0,0,0,0

1120 PRINT 75,0,0,0,0,0
1130 PRINT 76,0,0,0,0,0

1140 PRINT 77,0,0,0,0,0
1150 PRINT 78,0,0,0,0,0

1160 PRINT 79,0,0,0,0,0
1170 PRINT 80,0,0,0,0,0

1180 PRINT 81,0,0,0,0,0
1190 PRINT 82,0,0,0,0,0

1200 PRINT 83,0,0,0,0,0
1210 PRINT 84,0,0,0,0,0

1220 PRINT 85,0,0,0,0,0
1230 PRINT 86,0,0,0,0,0

1240 PRINT 87,0,0,0,0,0
1250 PRINT 88,0,0,0,0,0

1260 PRINT 89,0,0,0,0,0
1270 PRINT 90,0,0,0,0,0

1280 PRINT 91,0,0,0,0,0
1290 PRINT 92,0,0,0,0,0

1300 PRINT 93,0,0,0,0,0
1310 PRINT 94,0,0,0,0,0

1320 PRINT 95,0,0,0,0,0
1330 PRINT 96,0,0,0,0,0

1340 PRINT 97,0,0,0,0,0
1350 PRINT 98,0,0,0,0,0

1360 PRINT 99,0,0,0,0,0
1370 PRINT 100,0,0,0,0,0

1380 PRINT 101,0,0,0,0,0
1390 PRINT 102,0,0,0,0,0

1400 PRINT 103,0,0,0,0,0
1410 PRINT 104,0,0,0,0,0

1420 PRINT 105,0,0,0,0,0
1430 PRINT 106,0,0,0,0,0

1440 PRINT 107,0,0,0,0,0
1450 PRINT 108,0,0,0,0,0

1460 PRINT 109,0,0,0,0,0
1470 PRINT 110,0,0,0,0,0

1480 PRINT 111,0,0,0,0,0
1490 PRINT 112,0,0,0,0,0

1500 PRINT 113,0,0,0,0,0
1510 PRINT 114,0,0,0,0,0

1520 PRINT 115,0,0,0,0,0
1530 PRINT 116,0,0,0,0,0

1540 PRINT 117,0,0,0,0,0
1550 PRINT 118,0,0,0,0,0

1560 PRINT 119,0,0,0,0,0
1570 PRINT 120,0,0,0,0,0

1580 PRINT 121,0,0,0,0,0
1590 PRINT 122,0,0,0,0,0

1600 PRINT 123,0,0,0,0,0
1610 PRINT 124,0,0,0,0,0

1620 PRINT 125,0,0,0,0,0
1630 PRINT 126,0,0,0,0,0

1640 PRINT 127,0,0,0,0,0
1650 PRINT 128,0,0,0,0,0

1660 PRINT 129,0,0,0,0,0
1670 PRINT 130,0,0,0,0,0

1680 PRINT 131,0,0,0,0,0
1690 PRINT 132,0,0,0,0,0

1700 PRINT 133,0,0,0,0,0
1710 PRINT 134,0,0,0,0,0

1720 PRINT 135,0,0,0,0,0
1730 PRINT 136,0,0,0,0,0

1740 PRINT 137,0,0,0,0,0
1750 PRINT 138,0,0,0,0,0

1760 PRINT 139,0,0,0,0,0
1770 PRINT 140,0,0,0,0,0

1780 PRINT 141,0,0,0,0,0
1790 PRINT 142,0,0,0,0,0

1800 PRINT 143,0,0,0,0,0
1810 PRINT 144,0,0,0,0,0

1820 PRINT 145,0,0,0,0,0
1830 PRINT 146,0,0,0,0,0

1840 PRINT 147,0,0,0,0,0
1850 PRINT 148,0,0,0,0,0

1860 PRINT 149,0,0,0,0,0
1870 PRINT 150,0,0,0,0,0

1880 PRINT 151,0,0,0,0,0
1890 PRINT 152,0,0,0,0,0

1900 PRINT 153,0,0,0,0,0
1910 PRINT 154,0,0,0,0,0

1920 PRINT 155,0,0,0,0,0
1930 PRINT 156,0,0,0,0,0

1940 PRINT 157,0,0,0,0,0
1950 PRINT 158,0,0,0,0,0

1960 PRINT 159,0,0,0,0,0
1970 PRINT 160,0,0,0,0,0

1980 PRINT 161,0,0,0,0,0
1990 PRINT 162,0,0,0,0,0

2000 PRINT 163,0,0,0,0,0
2010 PRINT 164,0,0,0,0,0

2020 PRINT 165,0,0,0,0,0
2030 PRINT 166,0,0,0,0,0

2040 PRINT 167,0,0,0,0,0
2050 PRINT 168,0,0,0,0,0

2060 PRINT 169,0,0,0,0,0
2070 PRINT 170,0,0,0,0,0

2080 PRINT 171,0,0,0,0,0
2090 PRINT 172,0,0,0,0,0

2100 PRINT 173,0,0,0,0,0
2110 PRINT 174,0,0,0,0,0

2120 PRINT 175,0,0,0,0,0
2130 PRINT 176,0,0,0,0,0

2140 PRINT 177,0,0,0,0,0
2150 PRINT 178,0,0,0,0,0

2160 PRINT 179,0,0,0,0,0
2170 PRINT 180,0,0,0,0,0

2180 PRINT 181,0,0,0,0,0
2190 PRINT 182,0,0,0,0,0

2200 PRINT 183,0,0,0,0,0
2210 PRINT 184,0,0,0,0,0

2220 PRINT 185,0,0,0,0,0
2230 PRINT 186,0,0,0,0,0

2240 PRINT 187,0,0,0,0,0
2250 PRINT 188,0,0,0,0,0

2260 PRINT 189,0,0,0,0,0
2270 PRINT 190,0,0,0,0,0

2280 PRINT 191,0,0,0,0,0
2290 PRINT 192,0,0,0,0,0

2300 PRINT 193,0,0,0,0,0
2310 PRINT 194,0,0,0,0,0

2320 PRINT 195,0,0,0,0,0
2330 PRINT 196,0,0,0,0,0

2340 PRINT 197,0,0,0,0,0
2350 PRINT 198,0,0,0,0,0

2360 PRINT 199,0,0,0,0,0
2370 PRINT 200,0,0,0,0,0

2380 PRINT 201,0,0,0,0,0
2390 PRINT 202,0,0,0,0,0

2400 PRINT 203,0,0,0,0,0
2410 PRINT 204,0,0,0,0,0

2420 PRINT 205,0,0,0,0,0
2430 PRINT 206,0,0,0,0,0

2440 PRINT 207,0,0,0,0,0
2450 PRINT 208,0,0,0,0,0

2460 PRINT 209,0,0,0,0,0
2470 PRINT 210,0,0,0,0,0

2480 PRINT 211,0,0,0,0,0
2490 PRINT 212,0,0,0,0,0

2500 PRINT 213,0,0,0,0,0
2510 PRINT 214,0,0,0,0,0

2520 PRINT 215,0,0,0,0,0
2530 PRINT 216,0,0,0,0,0

2540 PRINT 217,0,0,0,0,0
2550 PRINT 218,0,0,0,0,0

2560 PRINT 219,0,0,0,0,0
2570 PRINT 220,0,0,0,0,0

2580 PRINT 221,0,0,0,0,0
2590 PRINT 222,0,0,0,0,0

2600 PRINT 223,0,0,0,0,0
2610 PRINT 224,0,0,0,0,0

2620 PRINT 225,0,0,0,0,0
2630 PRINT 226,0,0,0,0,0

2640 PRINT 227,0,0,0,0,0
2650 PRINT 228,0,0,0,0,0

2660 PRINT 229,0,0,0,0,0
2670 PRINT 230,0,0,0,0,0

2680 PRINT 231,0,0,0,0,0
2690 PRINT 232,0,0,0,0,0

2700 PRINT 233,0,0,0,0,0
2710 PRINT 234,0,0,0,0,0

2720 PRINT 235,0,0,0,0,0
2730 PRINT 236,0,0,0,0,0

2740 PRINT 237,0,0,0,0,0
2750 PRINT 238,0,0,0,0,0

2760 PRINT 239,0,0,0,0,0
2770 PRINT 240,0,0,0,0,0

2780 PRINT 241,0,0,0,0,0
2790 PRINT 242,0,0,0,0,0

2800 PRINT 243,0,0,0,0,0
2810 PRINT 244,0,0,0,0,0

2820 PRINT 245,0,0,0,0,0
2830 PRINT 246,0,0,0,0,0

2840 PRINT 247,0,0,0,0,0
2850 PRINT 248,0,0,0,0,0

2860 PRINT 249,0,0,0,0,0
2870 PRINT 250,0,0,0,0,0

2880 PRINT 251,0,0,0,0,0
2890 PRINT 252,0,0,0,0,0

2900 PRINT 253,0,0,0,0,0
2910 PRINT 254,0,0,0,0,0

2920 PRINT 255,0,0,0,0,0
2930 PRINT 256,0,0,0,0,0

Keeping track of time

Do you need to know what date falls on which day? This program from R. W. Hatfield will help

If you have problems with dates, and we're talking about the calendar and the dread task that this personal calendar program will be of considerable help.

The screen displays the complete calendar for the year and month entered, and one of left and right arrow keys causes the following or preceding month to be scrolled on to the screen.

Conversion should be straightforward as so well-

How it works
100-300 initialization and title introduction
310-400 accepts input for year and month and converts month to numeric value
400-450 main loop to follow
450-480 calculates instructions from keyboard
480-500 makes adjustment for ordinary and seasonal leap years
500-550 calculates which day the month begins
550-600 generates screen display and calls for user instructions

defined graphics are involved. Output to screen is mainly performed by display status items.

If you're the type of person that doesn't know whether it's Monday, Thursday or Christmas — this is the program for you.

Variables
Screen: CALL, Month, Day
Hold data for screen display
T input year
MON input month
A output number
L leap year
T total of complete years
S total of day advance for each year, leap year, and seasonal leap year (every 400 years)
MS complete months
M year for day display
DM start year for day display

```
100 : PERPETUAL CALENDAR
110 :
120 : R.W. HATFIELD
130 :
140 CALL CLEAR
150 PRINT " PERPETUAL CALENDAR
160 PRINT "
170 PRINT "ENTER YEAR & MONTH RE
180 PRINT "ENTER YEAR & MONTH RE
190 PRINT "ENTER YEAR & MONTH RE
200 CALL CLEAR
210 : INITIALISE
220 :
230 :
```

```
240 OPTION BASE 1
250 DIM CAL$(35)
260 DIM MONTH$(12)
270 DIM DAYS$(13)
280 FOR A=1 TO 35
290 READ DATES
300 CAL$(A)=DATES
310 NEXT A
320 DATA 1,2,3,4,5,6,7,8,9,10,11
330 DATA 12,13,14,15,16,17,18,19,20,21,2
340 DATA 2,23,24,25,26,27,28,29,30,31,....
350 FOR B=1 TO 12
360 READ MS
370 MONTH$(B)=MS
380 DATA JANUARY,FEBRUARY,MARCH,
390 DATA APRIL,MAY,JUNE,JULY,AUGUST,SEPT
400 DATA OCTOBER,NOVEMBER,DECEMBER
410 NEXT B
420 DATA MON,TUE,WED,THU,FRI,SAT
430 DATA SUN,MON,TUE,WED,THU,FRI,SAT
440 : INPUTS
450 :
```

TI-99/4A PROGRAMS

[illegible]

```

570 T=1-4
580 S=I-INT(2.34+INT(1.14*20+INT(
T-400)
590 RESTART=70
600 FOR H1=5 TO 0
610 READ PL H1 (C=0)
620 NEXT H1
630 READ PL H1 (C=1) (C=2) (C=3) (C=4)
640 DATA 0.20,28,1.1,1.2,1.3,1.4,
1.5,30,31,30,31
650 IF L=0 AND B=0 THEN GOTO 660
660 S=S+INT(5-T)/100
670
680 : DISPLAY
690 :
700 CALL CLEAR
710 DISPLAY AT(1,2):PRINTS(S);
720 FOR P=0 TO 24 STEP 3
730 DISPLAY AT(P,2):PRINTS(25-15.0
S*DO+1
740 NEXT P
750 A=1
760 FOR CL=0 TO 24 STEP 4 :1: FOR
P=0 TO 24 STEP 2
770 IF P > PL THEN GOTO 790
780 DISPLAY AT(P-CL):USING "##"
:PRINTS A; :PRINT
790 NEXT P :IF NEXT CL
800 CALL RESTART:STR=0 :IF STR=0
THEN GOTO ELSE 520
810 GOTO 510

```

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| 2 Wendy Must | Chivalry | Spectrum 128 |
| 3 Beach Brawl | U.S. Gold | Spectrum 128 |
| 4 Jet Set Willy | Software Projects | Spectrum 128 |
| 5 Kokoroni War | Elite | Spectrum 128 |
| 6 Zeaxxon | U.S. Gold | CBM 64 128 |
| 7 Beamer Mouse | Creative Concepts | Spectrum 128 |
| 8 Comet's Lane | Summit | Spectrum 128 |
| 9 Spectrum Ace | U.S. Gold | CBM 64 128 |

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| 2 Twins
Kingdom Maker | Big-Byte | Spectrum 128 |
| 3 Overlord | Melbourne Int. | Spectrum 128 |
| 4 American Football | Mind Games | Spectrum 128 |
| 5 Deuxer Machine | Autosoft | Spectrum 128 |
| 6 Hemphill | Melbourne Int. | Spectrum 128 |
| 7 World Cup Football | Amic | CBM 64 128 |
| 8 American Football | Mind Games | CBM 64 128 |
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COMMODORE 64

- | | |
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| 9 Spectrum Ace | U.S. Gold 128 |
| 10 Football Line | Webster 128 |

DRAGON 32

- | | |
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| 6 Zeaxxon | U.S. Gold 128 |
| 7 Beamer Mouse | Creative Concepts 128 |
| 8 Comet's Lane | Summit 128 |
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VIC-20

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| 9 Spectrum Ace | U.S. Gold 128 |
| 10 Football Line | Webster 128 |

BBC

- | | |
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| 6 Zeaxxon | U.S. Gold 128 |
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| 9 Spectrum Ace | U.S. Gold 128 |
| 10 Football Line | Webster 128 |

Z801

- | | |
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ADDRESS MANAGER and **FINANCE MANAGER** utilise the same 'on the page' presentation and offer 48K Spectrum owners a 'professional standard' address filing, indexing, retrieval, and financial analysis system. Below are examples of the screen presentations.

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The games are: Galactic Patrol-Tyrone, Devil's Canyon and Fellowship and they're all for the BBC.

Warlock Software was formed about six months ago and has already had six games for the BBC as the one of the main sponsors. Now Warlock is releasing a host of four games and these are the ones on offer this week.

Galactic Patrol was written by a Cambridge computer professor and contains over 100 pages of print machine code. It is an action-adventure game and the graphics

are in 3D. There are five screens and five different skill levels.

You play a pilot in the Galactic Patrol and your mission is to protect earth colonies from attack by hostile aliens. At the beginning of the game you equip your ship and choose your tank in the ship which is your weapon. The ship has a proton beam but its strength varies depending on the skill of the pilot.

Galaxy Patrol includes a feature called the computer ship which makes it a lot easier so that the colonists have to be equipped and learn how to fly. The mission is to fly through your own very efficient defense and you have to cope with your own force field.

When you finally arrive back at your HQ, the passengers meet

them to allow you to enter the machine world of Tyrone.

Every time you return the mission gets more difficult.

Devil's Canyon incorporates games within a game. The basic format is a maze up to you work your way through it, avoiding obstacles and traps. The traps are called by which you must remember to avoid on your way.

Fellowship places you in a battle playing through a Dungeons & Dragons style. There is a lot of action in this game. If you don't achieve your object within the time specified then a further round will be played.

Tyrone is different again. It's a property speculation game with lots of graphics and sound.

That is definitely a competition well worth entering since there's such a wealth of prizes. Send the two coupons, send the address we give you on this page and good luck!

How to enter

Send the two coupons — there are a number of differences between them. Check the differences to ensure it is all sent the coupons and

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You may enter as many times as you wish, but each entry must be on an official coupon — not a copy — and sealed in a separate envelope.

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(Continued)

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